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ABSTRACT

To determine some of the factors involved in a high school student's choice of occupation, data were collected by questionnaire from 366 senior high school students enrolled in distributive, occupational home economics, office occupations, and industrial education programs. Roe's occupational classification system was used to code the students' occupational choices into one of eight occupational groups based on the primary focus of activity in the occupation and into one of six occupational levels based on the degree of personal autonomy and level of skill and training required. Analyses of similarities and differences between students' occupational choices revealed: (1) Decisiveness of occupational choice seemed to correspond with satisfaction with school in general and with the value of school work in eventual employment, (2) Male students were more independent of friends' influence regarding their occupational preferences and choices than were females, (3) Teachers were consistently seen as most influential regarding occupational preferences and choices, and (4) Fathers' occupations were related to the sons' occupational choice, but mothers' occupations did not seem to be related to daughters' occupational choices. (SB)

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SELECTED FACTORS RELATED TO OCCUPATIONAL PREFERENCE OF HIGH SCHOOL STUDENTS ENROLLED IN VOCATIONAL EDUCATION PROGRAMS IN THE WICHITA PUBLIC SCHOOLS

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With the Cooperation of
The Vocational Education Staff and Students of the
Wichita Public Schools
Wichita, Kansas

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CHAPTER 1

INTRODUCTION

This is a report of results of a study of selected factors related to the occupational preference of senior high school students enrolled in vocational programs in the Wichita Public Schools. Data reported in this study were collected in May, 1971, and were responses by vocational students to questionnaire items. The students were enrolled in a variety of vocational programs offered in Wichita's six public senior high schools, the Vocational-Technical Center, the Community Education Center, and the Schweiter Technical Building.

The primary purpose of this study was the identification of some of the factors involved in a high school student's decision in making a choice of an occupation for himself or herself and the interrelatedness of those factors. Much research has been done and much has been written on the process an individual goes through in initially selecting an occupation and on his subsequent career development. That portion of the process which takes place prior to an individual's first full-time employment is primarily that of becoming aware of careers, specific occupations, and jobs; forming attitudes about work; discovering something of one's own interests, abilities, and aptitudes; and preparing oneself for employment and/or future education. A portion of the choice-making process also coincides with an individual's years of formal schooling.

Evans, Mangum, and Pragan (1969) stated in strong terms the importance they attach to the school-based influences on the decision-making process of students in making an occupational choice. In their policy paper reviewing the 1968 Vocational Education Amendments, they said:

> Vocational education cannot be meaningfully limited to the skills necessary for a particular occupation. It is more appropriately defined as all of those aspects of educational experience which help a person to discover his talents, to relate them to the world of work, to choose an occupation, and to refine his talents and use them successfully in employment. In fact, orientation and assistance in vocational choice may often be more valid determinants of employment success, and, therefore, more profitable uses of educational funds, than specific skill training (p. 63).

Schools in general and vocational education programs in particular can better serve students when the school-based influences of a student's occupational preferences and choice are identified and are given attention by teachers, counselors, curriculum planners, and others who are responsible for students. These influences do not work independently but rather interrelatedly. Brown (1970) gave researchers ample encouragement to put forth effort to identify both the influences on occupational choice-making and the interrelatedness of those influences in his comments in the conclusion of his thought-provoking review and critique of research and articles which dealt with students' vocational choices. He said:

> There is still much that is unknown about the process of vocational choice, the factors which contribute to the various stages of vocational choice, and what can be done to facilitate the process for the benefit of the individual. One of the very knotty problems is to determine the extent to which each of the multitude of factors contributes to the total variance known as vocational choice (p. 68).

He went on to add:

> What is even more perplexing is that as a profession, guidance is in its infancy with regard to facilitating the vocational choice process (p. 68).

Guidance, and more specifically guidance in assisting a student in his occupational choice, is shared by guidance personnel, teachers, parents, and others. The findings of this study clearly show the shared impact of these individuals on a student and his occupational choice.

This study will be of particular interest and help to Wichita vocational educators, counselors, and curriculum planners since all data herein were collected from 366 of Wichita's vocational students in a variety of programs. The Wichita Public School System has already demonstrated its interest in the total concept of career education by its active efforts in developing a career orientation program. Such programs rely heavily upon teachers' understanding of the factors influencing the occupational choices of students. It is hoped that this study and subsequent research will aid in that understanding.

CHAPTER 2
PROCEDURES

This study began with the identification of several variables which had been cited in related literature as factors associated with a high school student's choice of occupations. Analysis of the data from Wichita students has revealed the degree to which each variable was involved in a student's occupational choice-making, as reported by the student, and some measure of interaction among the variables under study.

VARIABLES IDENTIFIED

The discussion which follows identifies the six major groups of variables in essentially the same order they appeared on the student Questionnaire and in the same order in which the findings are presented in this report.

Several variables pertained to personal information about the students in the sample, including sex, age, grade level in school, and vocational curriculum and type of class in which he was enrolled. Each student indicated his average grades and selected from a list of four words the word which most often described his opinion of "school." Information about his parents' occupations, highest level of formal schooling, combined family income, and family geographic mobility was also obtained from the student.

The second group of variables selected dealt with what a student wanted most in a job, what three occupations he had given most serious consideration to entering when he begins full-time employment, what occupation he had chosen, if he had chosen one, and for how long that choice had been made.

A third group of variables was related to the relative helpfulness to a student, as he saw them, of sources of occupational information such as parents, teachers, counselors, and written and video sources.

The fourth group of variables indicated the sources of influence, approval, and pressure which a student felt in making his choice of an occupation. The sources included were parents, teachers, counselors, and friends.

The fifth group of variables dealt with how a student felt about a list of varied occupations ranging from unskilled to the professional.

The sixth and final group of variables resulted in a computed measure of a student's occupational information. Parnes (U. S. Dept. of Labor, 1970) and his associates in the Center for Human Resource Research at The Ohio State University developed a test which they referred to as the Occupational Information Test (OIT) or Knowledge of the World of Work. This test has been used as a part of their longitudinal study of the educational and labor market experience of male youth. Parnes described the test as a very limited one for the measurement of an individual's knowledge of the world of work but, within the constraints of his study for which the test was developed, it did provide a useable index. A portion of that Occupational Information Test was adopted for use in this study to establish a similar index. No claim is made that the OIT is a valid measure of occupational information but rather that it provided this study with a descriminating index for the amount of occupational information a student possessed.

The limitations involved with using Parnes' OIT in this study must be recognized. First, the test was designed for male youth. There were both male and female students in this study. Second, only a portion of the test was used. The test as developed by Parnes asked respondents first to identify the description of duties from three given options for each of ten occupations and, second, to identify the typical educational attainment of workers in those occupations from four given options. The portion of the test used in this study included both the duties and educational attainment components of the questions for seven of the ten occupations on the Parnes test. A composite OIT score was computed for each student and that score, grouped in quartiles, was used as the basis of the student's knowledge of occupations in the data analysis.

QUESTIONNAIRE DEVELOPMENT

A tentative draft of the Questionnaire covering the six groups of variables was developed with the assistance of Dr. Charles K. West, the faculty advisor for this study, and specialists with the Survey Research Laboratory at the University of Illinois at Urbana-Champaign. This draft was submitted to Dr. Ralph E. Walker, Director of Research and Evaluation Services Division for the Wichita Public Schools and the Research Council of

the school system including Dr. Floyd M. Farmer, Director of the Curriculum Division, Dr. David McElhiney, Director of Secondary Education, and Dr. Doyle Koontz, Director of Elementary Education. Subsequently a field trail draft of the Questionnaire was prepared which incorporated the suggestions made by the Research Council.

The field trial was conducted with the cooperation of three public senior high schools in three different Illinois communities. The 86 student respondents were enrolled in vocational education programs similar to those of the respondents in this study. It was necessary to make only minor modifications in the Questionnaire following the field trial.

Tests of readability and human interest were made on the total Questionnaire using the procedures developed by Rudolf Flesch (1951). The overall reading level score was classified, according to Flesch's interpretation, as "fairly easy" and at the seventh grade reading level. The overall human interest score was classified as "highly interesting." The human interest score is based primarily on the number of "personal words," which are personal pronouns, used in the writing.

CLASSIFICATION OF OCCUPATIONS

The Questionnaire included seven questions which asked each student to indicate a specific occupation: his father's, his mother's, the three he most seriously considered entering when he begins full-time employment, the one he has chosen, if he has chosen one, and his "dream job." These questions posed a problem initially in the development of the Questionnaire. An attempt was made to develop a representative list of occupations from which a student would select the one which most closely identified his response to each of the seven questions. However, that plan was abandoned because a truly representative list would be too lengthy to be useful and might suggest occupations to the student which might not be his natural response under open-response conditions. Therefore, the open-ended question approach was adopted, thus creating the need for a classification scheme for coding the open responses.

After a brief review of several occupational classification schemes, the scheme developed by Anne Roe (Roe, 1956) and her associates was selected

because of its two-dimensional design which provided an index for each occupation of both occupational group and occupational level. The dimension of occupational group allows the classification of each occupation into one of eight groups based on its primary focus of activity. The dimension of occupational level allows the classification of each occupation into one of six levels based on the degree of personal autonomy and the level of skill and training required for that occupation. The resultant matrix has 48 cells or specific group and level combinations into which every occupation could be classified. The arrangement of the groups reflects the close relationship between certain groups; contiguous groups are more closely related than noncontiguous ones. The entire matrix, theoretically, represents a cylinder with the groups arranged around the circumference reflecting the close relationship between Group 1 and Group 8. The titles of the groups and levels are indicated on the matrices shown in Chapter 3 of this report.

Appendix E provides a representative list of occupations which are classified in several of the 48 cells of the Roe matrix. This matrix also serves to list the occupations which the students in this sample indicated were their choices of an occupation to enter when they begin full-time work. These occupations are more fully described in Chapter 3.

For further detail on the construction of this matrix, interested readers are encouraged to review Dr. Roe's discussion of the matrix in her book The Psychology of Occupations.

The coding system adopted for this study applied a two-digit number to each response of a title of an occupation. The first digit indicated the group and the second digit indicated the level into which each occupation was classified. This coding system provided for reporting the data of occupations in the format of the 48-cell matrix and as the basis for reporting discrepancy of group and level between a student's choice of an occupation and that of his father and his mother and the discrepancy between the first-listed and second-listed occupation which the student most seriously considered entering.

APPROVAL FOR RESEARCH

A formal request for research approval to conduct the study in the Wichita Public School System was submitted to Dr. Ralph E. Walker and the Research Council. Attached to the request were the list of selected in-tact vocational education classes requested for use in the study and the revised field-tested Questionnaire.

Administrative approval was granted to conduct the study in the Wichita Public Schools as was permission to approach the teachers of the selected vocational classes to request their assistance by administering the Questionnaire to their students.

ADMINISTRATION OF THE QUESTIONNAIRE

In early May, 1971, the 26 teachers whose vocational classes had been selected for this study received a letter briefly describing the purpose of the study and requesting their help. They were informed that the Questionnaires and supporting instruction and identification coding sheets would be forthcoming. Soon thereafter, these teachers received a packet of materials consisting of a cover letter (Appendix A) naming the particular class which had been selected for inclusion in the sample, a set of instructions (Appendix B) for administering the student form of the Questionnaire, an identification sheet (Appendix C) for coding the participating class by its school, vocational curriculum, and type of class, and an ample number of the student Questionnaire forms for the selected class.

The particular week when the teachers received the materials coincided with the last week the seniors were in class; this schedule worked a hardship on the participating teachers and their students since the majority of the selected classes were senior-level classes. However, 24 teachers did find it possible to administer the Questionnaire to their students.

CHAPTER 3

FINDINGS

There were originally 371 individual respondents to the Questionnaire. However, five of those were adults as identified by their response to the question asking their age. Because the study focused on adolescents, the answer sheets completed by those five adults were discarded leaving the total of 366 respondents whose responses were used in the analyses of this study.

The Questionnaire has been reproduced in Appendix D and shows the frequency distribution of responses for each question.

Statistical analyses of the data were performed by two packaged computerized programs. The SPSS program (Statistical Package for the Social Sciences) provides users with an integrated system of computer programs for analysis of social science data (Nie, Bent, & Hull, 1970). The statistical procedures used from the SPSS package for analyzing these data were frequency tabulations, variable transformations and generation, cross-tabulations, and Pearson product-moment, missing-data correlations.

Analyses of variance were performed on the discrepancy scores of occupational groups and occupational levels among themselves and with other selected variables. That program is part of the packaged computerized statistical programs offered by SOUPAC (Statistically Oriented Users Programming and Consulting) written by the statistical consultants of the Department of Computer Science at the University of Illinois at Urbana-Champaign (SOUPAC Program Descriptions, 1972).

Cross-tabulations are used to report much of the data of this study and the variables of curriculum, type of class, and sex are used frequently as the independent variable in the cross-tabulations. Those three variables were chosen because they reflect the commonly used categories for identifying and comparing vocational students and because it was felt that these categories would readily convey the kind of information which is of most interest to those concerned with students' occupational decision-making.

In the interest of clarity and conciseness, abbreviations for the four curricula have been adopted for use in this report. The frequency with which these curricula are referred to make it necessary to streamline the terminology.

Therefore, Distributive Occupations will be referred to as Distributive, Office Occupations will be referred to as Office, and Industrial Occupations will be referred to as Industrial. In the case of Home Economics Related Occupations, the acronym HERO will be used because it is felt that the term Home Economics is too general and the full title is too cumbersome for repeated use in this report.

PERSONAL AND FAMILY VARIABLES

Overview of the Sample

Distribution of Sample by Curriculum, Type of Class, and Sex: Table 1 provides the frequency detail by curriculum and type of class by each school in which the participating students were enrolled. The identification of schools ends with the detail in Table 1. In all analyses in this study, identification of students is made by the curriculum or type of class in which they were enrolled, by their sex, or by whatever other variable is of interest in the particular analysis under discussion.

Data concerning the type of class in which the student was enrolled were collected in order to identify those students who were cooperative education students and concurrently employed part-time in business and industry and those who were full time in-school students, not cooperative education students. Of the latter group, the distinction was made between senior level classes which were not cooperative but integrative vocational classes and classes which were combination junior and senior level vocationally related classes. No data were collected on the number of full-time students who were also employed outside of school-directed activities.

Table 2 shows the distribution of students across the four curricular areas by sex and by type of class. The answer sheets of the three male students who reported enrollment in the HERO program were reviewed for possible key punching errors. The responses of these three students to the questions asking for the occupations which they considered entering and their choice of an occupation gave some assurance that the students were male and that an error had not been made either in key punching or by the student in marking his own Questionnaire.

TABLE 1. DISTRIBUTION OF STUDENTS (SAMPLE) BY CURRICULUM, BY TYPE OF CLASS, AND BY SCHOOL

School Name	Total Students	CURRICULUM				TYPE OF CLASS		
		Dist.	HERO	Office	Indus.	Coop	Sr.Level Not Coop	Jr./Sr. Related
East High School	36	12		24		24	12	
Heights High School	29			29		14	15	
North High School	60	15	16	29		29	24	7
South High School	57	21	13	23		21	36	
Southeast High School	27			27		14	13	
West High School	85	15	34	36		50	35	
Vocational-Technical Center	47				47	47		
Community Education Center	20		20					20
Schweiter Building	5				5			5
TOTAL	366	63	83	168	52	199	135	32
% of Total	100%	17%	23%	46%	14%	54%	37%	9%

TABLE 2. DISTRIBUTION OF STUDENTS (SAMPLE) BY CURRICULUM, BY SEX, AND BY TYPE OF CLASS

	Total		CURRICULUM												
			Distributive					HERO					Office[a]		Industrial[b]
			Male		Female		sub	Male		Female		sub	Female		Male
	N	%	N	%	N	%	tot	N	%	N	%	tot	N	%	N	%
TYPE OF CLASS:															
Cooperative	199	54.4	26	41.3	37	58.7	63	3	16.7	15	83.3	18	71	100.0	47	100.0
Senior Level, Not Coop	135	36.9	--	--	--	--	--	--	--	38	100.0	38	97	100.0	--	--
Junior/Senior Related	32	8.7	--	--	--	--	--	--	--	27	100.0	27	--	--	5	100.0
TOTAL	366	100.0	26	(41.3)	37	(58.7)	63	3	(3.6)	80	(96.4)	83	168	(100.0)	52	(100.0)

[a]All students in the Office curriculum were female.

[b]All students in the Industrial curriculum were male.

Cooperative classes in which only seniors were enrolled made up 54 percent of the total sample. These senior students plus the additional 37 percent of the sample enrolled in the senior level, not cooperative classes, made a total of 91 percent of the sample who were seniors. All of the 63 Distributive students and 47 of the 52 Industrial students were enrolled in cooperative classes. Those students enrolled in HERO were primarily in senior level, not cooperative and junior/senior related classes. The Office students were nearly equally divided in number between cooperative classes and senior level, not cooperative classes. Of the total students in the sample, nearly half, 46 percent, were Office students.

Students' Grades: The average grades made by the students, as reported by them, appear in Table 3. A much greater percent of Office students reported higher grades than students in the other three curricula. Nearly half of the Office students, 47.6 percent, reported making A's and B's while the next highest percent group, Industrial students, reported less than half that proportion, 21.2 percent.

A cross-tabulation based on the type of class in which the student was enrolled showed that slightly more students in senior level, not cooperative classes reported higher grades than did students in the other types of classes. Proportionately, twice as many female students as male students, 33.7 percent compared to 17.3 percent, reported making the relatively higher grades.

Students' Opinions of "School:" Table 4 shows the distribution of responses by curriculum, by type of class, and by sex to a forced-choice question of four one-word alternates asking their opinion of "school" in general. The differences by curriculum were not statistically significant. However, the Distributive students appeared to be a little less satisfied with school in general than were students in other curricula. Of the total sample, slightly more than half, 53.2 percent, reported a positive opinion of school.

When tabulated by type of class in which the students were enrolled, those students in the junior/senior related classes generally reflected a more positive attitude about school than students in the other two types of classes and the students in cooperative education classes reflected a less positive attitude than those in the not cooperative classes.

TABLE 3. STUDENT'S AVERAGE GRADES IN SCHOOL BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	Total		STUDENT'S AVERAGE GRADES								
			A's & B's		B's & C's		C's & D's		D's & F's		Total
	N	%	N	%	N	%	N	%	N	%	%
CURRICULUM:											
Dist.	63	17.2	8	12.7	34	54.0	21	33.3	-	--	100.0
HERO	83	22.7	11	13.3	42	50.6	28	33.7	2	2.4	100.0
Office	168	45.9	80	47.6	78	46.4	10	6.0	-	--	100.0
Indus.	52	14.2	11	21.2	27	51.9	13	25.0	1	1.9	100.0
TOTAL	366	100.0	110	(30.1)	181	(49.4)	72	(19.7)	3	(0.8)	100.0
TYPE OF CLASS:											
Coop.	199	54.4	53	26.6	99	49.8	46	23.1	1	0.5	100.0
Sr. Lev. Not Coop	135	36.9	49	36.3	69	51.1	17	12.6	-	--	100.0
Jr./Sr. Related	32	8.7	8	25.0	13	40.6	9	28.1	2	6.3	100.0
TOTAL	366	100.0	110	(30.1)	181	(49.4)	72	(19.7)	3	(0.8)	100.0
SEX:											
Male	81	22.1	14	17.3	42	51.9	24	29.6	1	1.2	100.0
Female	285	77.9	96	33.7	139	48.8	48	16.8	2	0.7	100.0
TOTAL	366	100.0	110	(30.1)	181	(49.4)	72	(19.7)	3	(0.8)	100.0

TABLE 4. STUDENT'S CHOICE OF A ONE-WORD OPINION OF SCHOOL BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	Total		OPINION OF SCHOOL								
			Exciting		Interesting		Tiresome		Maddening		Total
	N	%	N	%	N	%	N	%	N	%	%
CURRICULUM:											
Dist.	63	17.2	--	0.0	24	38.1	31	49.2	8	12.7	100.0
HERO	82	22.6	7	8.5	40	48.8	29	35.4	6	7.3	100.0
Office	168	46.2	11	6.6	79	47.0	64	38.1	14	8.3	100.0
Indus.	51	14.0	1	2.0	32	62.7	15	29.4	3	5.9	100.0
TOTAL	364	100.0	19	(5.2)	175	(48.1)	139	(38.2)	31	(8.5)	100.0
TYPE OF CLASS:											
Coop	198	54.4	4	2.0	90	45.5	82	41.4	22	11.1	100.0
Sr. Lev. Not Coop	135	37.1	11	8.2	66	48.9	50	37.0	8	5.9	100.0
Jr./Sr. Related	31	8.5	4	12.9	19	61.3	7	22.6	1	3.2	100.0
TOTAL	364	100.0	19	(5.2)	175	(48.1)	139	(38.2)	31	(8.5)	100.0
SEX:											
Male	80	22.0	1	1.3	44	55.0	27	33.7	8	10.0	100.0
Female	284	78.0	18	6.4	131	46.1	112	39.4	23	8.1	100.0
TOTAL	364	100.0	19	(5.2)	175	(48.1)	139	(38.2)	31	(8.5)	100.0

Family Characteristics

Fathers' Occupations: Of the 366 students in the sample, 361 responded to the question asking whether their father, or stepfather, was living in the home with them; 301 or 83.4 percent of the respondents answered yes. When asked if their father, or stepfather, was working, 313 or 85.5 percent of the sample responded to the question; and, of those, 283 or 90.4 percent of the respondents answered yes. The next question asked for the name of the father's, or stepfather's, occupation. There were 296 responses to this question or 13 more than those who responded that their fathers were employed. All 296 responses were coded by the Roe Occupational Classification scheme and then tallied.

Table 5 shows the distribution of the fathers' occupations on the Roe matrix. The occupational group containing the highest frequency of occupations named was Group 4, Technology, in which 61.1 percent of the fathers' occupations were classified. The occupational level containing the highest frequency, 34.5 percent, was Level 3, Skilled. The matrix cell at the intersection of Group 4 and Level 3 account for 80 or 27.0 percent of the fathers' occupations. Within that specific cell, 14 of the reported occupations were "inspectors" and 13 were "mechanics." Other occupations within the cell were reported with much less frequency than those two occupations.

The combined frequency of Levels 2 and 3, Semiskilled and Skilled, contained 180 or 60.9 percent of all occupations. When Level 4, Semiprofessional and Small Business, was added to Levels 2 and 3, 265 or 89.6 percent of the fathers' occupations were included.

While more detailed analyses of fathers' occupational groups and levels compared to students' choices of occupations are described later in this chapter, the cross-tabulations showing the percent distribution of both group and level of fathers' occupations by students' curricula appear in Tables 6A and 6B. Table 6A shows the fairly even distribution of the fathers' occupational groups across students' curricula. For example, Group 4, Technology, contained 61.1 percent of all fathers' occupations. A similar percent of fathers' occupations appeared in that group for each of the curricula with a range from 58.7 percent of the Office students whose fathers' occupations were in this group to that of 65.0 percent for the Industrial students.

TABLE 5. FATHERS' OCCUPATIONS (ON THE ROE MATRIX)

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1							1 0.3%		1 0.3%
5 Prof./ Mgr. 2	2 0.7%		5 1.7%	9 3.0%			7 2.4%	1 0.3%	24 8.1%
4 Semi-Prof./ Sm. Bus.	8 2.7%	10 3.4%	43 14.5%	20 6.8%	1 0.3%	2 0.7%	1 0.3%		85 28.7%
3 Skilled	9 3.0%	2 0.7%	11 3.7%	80 27.0%					102 34.5%
2 Semi-skilled	10 3.4%		1 0.3%	67 22.6%					78 26.4%
1 Un-skilled	1 0.3%			5 1.7%					6 2.0%
TOTAL	30 10.1%	12 4.1%	60 20.3%	181 61.1%	1 0.3%	2 0.7%	9 3.1%	1 0.3%	296 100%

TABLE 6A. PERCENT DISTRIBUTION OF FATHER'S OCCUPATIONAL GROUP BY CURRICULUM OF STUDENT

CURRICULUM	TOTAL N	FATHER'S OCCUPATIONAL GROUP								
		1 Service %	2 Business Contact %	3 Organi-zation %	4 Tech-nology %	5 Outdoor %	6 Science %	7 General Cultural %	8 Arts/Enter tainment %	TOTAL %
Dist.	51	7.9	3.9	23.5	62.7	--	--	2.0	--	100.0
HERO	62	14.5	4.8	14.5	63.0	--	--	3.2	--	100.0
Office	143	8.4	4.9	23.8	58.7	--	0.7	2.8	0.7	100.0
Indus.	40	12.5	--	12.5	65.0	2.5	2.5	5.0	--	100.0
TOTAL N	296	30	12	60	181	1	2	9	1	
% of TOTAL N		10.1	4.1	20.3	61.1	0.3	0.7	3.1	0.3	100.0

TABLE 6B. PERCENT DISTRIBUTION OF FATHER'S OCCUPATIONAL LEVEL BY CURRICULUM OF STUDENT

CURRICULUM	TOTAL N	FATHER'S OCCUPATIONAL LEVEL						
		1 Unskilled %	2 Semiskilled %	3 Skilled %	4 Semiprof./ Sm. Bus. %	5 Prof./Mgr. 2 %	6 Prof./Mgr. 1 %	TOTAL %
Dist.	51	2.0	21.6	31.4	39.1	5.9	--	100.0
HERO	62	1.6	35.5	38.7	19.4	3.2	1.6	100.0
Office	143	0.7	25.2	34.3	28.6	11.2	--	100.0
Indus.	40	7.5	22.5	32.5	30.0	7.5	--	100.0
TOTAL N	296	6	78	102	85	24	1	
% of TOTAL N		2.0	26.4	34.5	28.7	8.1	0.3	100.0

The percents of employed fathers of HERO and Industrial students were somewhat higher in Group 1, Service, and lower in Group 3, Organization, than the fathers of students in the other curricula. The percent of all fathers' occupations in a given group was similar to that group's percent of the total when considered by the students' curricula.

Table 6B presents similar data for the father's occupational level. This table reflects less of an even distribution by students' curricula than Table 6A but no definite pattern was consistent across any given curriculum. Where the percent distribution across a curriculum varied greatly from the distribution as a whole, as on Level 1, Unskilled, the number of occupations classified in each cell was too small on which to base strong conclusions.

However, some percent clustering did occur. The percents of HERO students' fathers at Levels 2 and 3, Semiskilled and Skilled, 35.5 percent and 38.7 percent respectively, and Distributive students' fathers at Level 5, Professional and Managerial 2, 39.1 percent, represented the level at which the majority of those fathers were employed and also represented the largest percent group on those three levels. The largest group of employed fathers of Office students, 34.3 percent, were employed at Level 3, Skilled, and also had the largest percent group, 11.2 percent, at Level 5. Industrial students' fathers were employed primarily at Levels 3 and 4, Skilled and Semiprofessional and Small Business with 32.5 percent and 30.0 percent respectively. There were also equal percents, 7.5 percent, of Industrial students' fathers employed at Levels 1, Unskilled, and 5, Professional and Managerial 2.

Mothers' Occupations: A series of questions similar to those asked about the student's father was also asked about their mother. There were 360 responses, 98.4 percent of the total sample, to the question asking if the student's mother, or stepmother, was living in the home with the student. There were 334 or 92.8 percent yes responses. When asked if their mother, or stepmother, was employed either part-time or full-time outside of the home, 93.2 percent of the total sample responded; 174 or 51.0 percent of the respondents marked yes. Of the 366 students in the sample, 176 or 48.1 percent reported and out-of-the-home occupation for their mothers.

Table 7 gives the detail of the mothers' occupations as classified on the Roe matrix. Occupational Group 3, Organization, had the highest frequency of occupations with 48.3 percent. Clerical and retail sales occupations were classified in this group and were the most frequently named occupations for mothers.

Occupational Level 2, Semiskilled, and Level 3, Skilled, contained the highest frequency of occupations; 32.4 percent at Level 2 and 29.5 percent at Level 3 making a total of 61.9 percent of the occupations. There were no mothers' occupations classified at Level 6, Professional and Managerial 1. This distribution was similar to the matrix in Table 5 showing the occupational levels of fathers' occupations in which only one occupation was classified at Level 6, that one father was an attorney. However, Level 1, Unskilled, contained 16 cases or 9.1 percent of the mothers' occupations and only 6 or 2.0 percent of the fathers' occupations.

Tables 8A and 8B provide the detail of the percent distribution of occupational group and level of the mother's occupation by the student's curriculum. The overall percent distribution of all mothers' occupations by group was different from the distribution of occupational group when considered by each curriculum in which the student was enrolled. Employed mothers of Distributive students were more likely to be employed in Group 3, Organization, occupations and less likely to be employed in Group 1, Service, occupations than employed mothers of students in other curricula. HERO students whose mothers were employed were more likely to be employed in Group 1, Service, occupations than mothers of students in other curricula. Employed mothers of Industrial students were about half as likely to be employed in Group 3, Organization, occupations and twice as likely to be employed in Group 6, Science, occupations than other employed mothers. All the mothers' occupations in Group 6 were in health service occupations.

The distribution of occupational level of employed mothers varied across curricula of students but no consistent pattern was discernible. The employed mothers of HERO students represented the highest percent, 19.4 percent, of mothers employed at Level 1, Unskilled, but the percent distribution of HERO students' mothers across other levels was similar to those of mothers of students in other curricula. Distributive students' mothers had the lowest

TABLE 7. MOTHERS' OCCUPATIONS (ON THE ROE MATRIX)

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1									--
5 Prof./ Mgr. 2			1 0.6%			8 4.5%	6 3.4%		15 8.5%
4 Semi-Prof./ Sm. Bus.		1 0.6%	30 17.0%	1 0.6%		2 1.1%	1 0.6%	1 0.6%	36 20.5%
3 Skilled	10 5.7%	1 0.6%	36 20.5%	2 1.1%		3 1.7%			52 29.5%
2 Semi-skilled	19 10.8%	1 0.6%	18 10.2%	18 10.2%		1 0.6%			57 32.4%
1 Un-skilled	9 5.1%			7 4.0%					16 9.1%
TOTAL	38 21.6%	3 1.7%	85 48.3%	28 15.8%	--	14 8.0%	7 4.0%	1 0.6%	176 100%

TABLE 8A. PERCENT DISTRIBUTION OF MOTHER'S OCCUPATIONAL GROUP BY CURRICULUM OF STUDENT

CURRICULUM	TOTAL N	MOTHER'S OCCUPATIONAL GROUP								
		1 Service %	2 Business Contact %	3 Organi-zation %	4 Tech-nology %	5 Outdoor %	6 Science %	7 General Cultural %	8 Arts/Enter tainment %	TOTAL %
Dist.	35	8.6	5.7	62.9	17.1	--	5.7	--	--	100.0
HERO	31	32.3	--	45.2	12.8	--	3.2	6.5	--	100.0
Office	82	23.2	--	51.3	14.6	--	7.3	2.4	1.2	100.0
Indus.	28	21.4	3.6	25.0	21.4	--	17.9	10.7	--	100.0
TOTAL N	176	38	3	85	28	--	14	7	1	
% of TOTAL N		21.6	1.7	48.3	15.8	--	8.0	4.0	0.6	100.0

TABLE 8B. PERCENT DISTRIBUTION OF MOTHER'S OCCUPATIONAL LEVEL BY CURRICULUM OF STUDENT

CURRICULUM	TOTAL N	MOTHER'S OCCUPATIONAL LEVEL						
		1 Unskilled %	2 Semiskilled %	3 Skilled %	4 Semiprof./ Sm. Bus. %	5 Prof./Mgr. 2 %	6 Prof./Mgr. 1 %	TOTAL %
Dist.	35	2.9	40.0	25.7	31.4	--	--	100.0
HERO	31	19.4	25.8	29.0	16.1	9.7	--	100.0
Office	82	6.1	31.8	34.1	19.5	8.5	--	100.0
Indus.	28	14.3	32.1	21.4	14.3	17.9	--	100.0
TOTAL N	176	16	57	52	36	15	--	
% of TOTAL N		9.1	32.4	29.5	20.5	8.5	--	100.0

percent, 2.9 percent, of all curricula at Level 1 and the highest percent of all curricula, and the largest group within that curricula, employed at Level 2, Semiskilled. The employed mothers of Industrial students were distributed across the levels in a distribution quite different from that of mothers of students in the other curricula. They represented the second largest group at Level 1, Unskilled, with 14.3 percent, and the largest group at Level 5, Professional and Managerial 2, with 17.9 percent. Office students' mothers were employed primarily at Levels 2 and 3, Semiskilled and Skilled, but had representation at all levels except Level 6 where no mothers were employed.

Looking only at the percents of the total sample of 366 students whose fathers and mothers were employed and cross-tabulated by their curriculum, one similarity of percents by curriculum was revealed. There were 80.9 percent of the students whose fathers were employed. By curriculum, those percents were: Distributive, 81.0 percent; HERO, 74.7 percent; Office, 85.1 percent; and Industrial, 76.9 percent. The curriculum with the highest percent of students with employed fathers was Office and that with the lowest percent was HERO.

The 81.0 percent of the students whose fathers were employed should not be interpreted as 19.0 percent of the students had fathers who were unemployed. The Questionnaire did not include a question asking specifically if the father, or stepfather, was unemployed. Additional data available from three other questions gave further information concerning the status of the fathers of the 70 students who did not report employment for their fathers.

Due to the nature of the Questionnaire format, approximately 60 students whose fathers were not living in the home with them were instructed to skip the questions specifically requesting the father's employment status. In addition, 15 students reported their fathers as deceased. Thirty students reported that their father, or stepfather, was not "now working."

One additional fact should be taken into consideration and that is at the time these data were collected from Wichita students, Wichita was experiencing a very high level of unemployment primarily attributable to economic depression of the aircraft manufacturing industry. In the four months prior to the administration of this Questionnaire, the unemployment rate in Wichita reached as much as 15 percent. It was not possible to

identify the number of students whose fathers might have been included in the large unemployment group due to the decline in aircraft manufacturing in Wichita.

There were 48.1 percent of the students whose mothers were employed and, by curriculum, those percents were: Distributive, 55.6 percent; HERO, 37.3 percent; Office, 48.8 percent; and Industrial, 53.8 percent. The curriculum with the highest percent of students with employed mothers was Distributive and the curriculum with the lowest percent of employed mothers was HERO, the same curriculum in which the lowest percent of employed fathers occurred.

Parents' Estimated Income: One third of the respondents to the question asking the student to estimate his parents' combined income indicated that they did not know what it was. Twenty percent estimated their parents' income at less than $8,000 per year and an additional 28 percent estimated it to be between $8,100 and $12,000 per year. About 11 percent estimated their parents' annual income between $12,100 and $16,000 and the remaining 8 percent estimated that it was over $16,100. Because such a large proportion of the sample did not make an estimate, no further analysis was made with these data.

Parents' Educational Attainment: There were 362 students of the total sample who responded to the two questions asking for the amount of schooling acquired by each parent. Table 9 shows the detail of the responses.

TABLE 9. HIGHEST LEVEL OF SCHOOLING OF PARENTS

Level of Schooling	Father		Mother	
	N	%	N	%
1st, 2nd, or 3rd grade	5	1.4	4	1.1
4th, 5th, or 6th grade	14	3.9	14	3.9
7th, 8th, or 9th grade	58	16.0	39	10.8
some high school but did not graduate	60	16.6	57	15.7
graduated from high school	100	27.6	157	43.4
some college but did not graduate	39	10.8	43	11.8
graduated from college	47	13.0	25	6.9
don't know	24	6.6	18	5.0
deceased	15	4.1	5	1.4
TOTAL	362	100.0	362	100.0

The general pattern of parents' education seemed to be that more fathers than mothers did not graduate from high school; but of those who did graduate from high school, more fathers than mothers went on to eventually graduate from college. Approximately one third of the fathers and of the mothers, 37.9 percent and 31.5 percent respectively, did not finish high school. The percent distribution differs greatly between fathers and mothers at the high school graduate level and beyond. More mothers, 43.4 percent, concluded their formal schooling with high school graduation than did the 27.6 percent of the fathers who finished high school and went no further with their formal education. A similar percent of each group, 10.8 percent of the fathers and 11.8 percent of the mothers, did some college work but did not graduate from college. The percents differ again in the "graduated from college" category with 13.0 percent of the fathers and 6.9 percent of the mothers in this group. The remaining 10.7 percent of the responses for fathers and 6.4 percent of the responses for mothers were grouped in the categories of "don't know" or "deceased."

Family Geographic Mobility: As a group, the students in this sample and their families were not geographically mobile. One half of the students, 50.1 percent, indicated that they had lived in Wichita all their lives. An additional 18.2 percent had moved to a different city or town only once during their lives. Detail on the responses to this question are given below.

Question: How many times during your life have you moved into a different city or town?

Responses		Response Options
N	%	
182	50.1	never, have always lived here
66	18.2	1 time
38	10.5	2 times
23	6.3	3 times
10	2.8	4 times
44	12.1	5 or more times
363	100.0	

Because the occupation of the head of the household is usually a major determinant in the geographic location and relocation of a family, a cross-tabulation was made of students' responses to the questions dealing with family mobility and with the occupational level of their fathers. This analysis was based upon the assumption that, for the most part, the father was the head of the household for these students. Table 10 shows that cross-tabulation.

The six occupational levels of the Roe matrix were collapsed into four levels and renumbered for use in this analysis because of the small number of cases at two of the levels. The distribution of fathers' occupations on the Roe matrix (see Table 5) showed 6 cases at Level 1, Unskilled, and 1 case at Level 6, Professional and Managerial 1. While there are six distinct occupational levels as described by Roe, Levels 5 and 6, Professional and Managerial 1 and 2, are closely related to each other as are Levels 1 and 2, Unskilled and Semiskilled. Therefore, combining Level 6 with 5 and Level 1 with 2 did not seriously violate the rationale for the six levels. The four occupational levels used in these analyses were 1) Unskilled and Semiskilled; 2) Skilled; 3) Semiprofessional and Small Business, hereafter referred to as Semiprofessional; and 4) Professional and Managerial 1 and 2, hereafter referred to as Professional.

The total number of cases shown in Table 10 is 293 or 70 less than the total number of respondents to the mobility question. This was the result of cross-tabulating these responses with those of the father's occupation. The 293 cases in Table 10 represent all those cases with available data on both variables. The loss of cases in this cross-tabulation had little effect on the distribution of percents across the mobility categories.

A Chi-square analysis applied to the data in Table 10 produced a Chi-square value of 22.81 with 15 degrees of freedom which had a probability of 0.088 indicating that some relationship probably existed between the mobility of the family and the occupational level of the father.

A review of the percent distributions in this table showed that there was a consistent decline in the proportion of cases within each occupational level from Unskilled/Semiskilled to Professional and of the subsample as a whole across the mobility categories from "none" to "moved four times" while

TABLE 10. FAMILY GEOGRAPHIC MOBILITY (TIMES MOVED TO A DIFFERENT CITY) BY FATHER'S OCCUPATIONAL LEVEL

FATHER'S OCCUPATIONAL LEVEL	TOTAL		FAMILY GEOGRAPHIC MOBILITY (Times Moved To a Different City)												TOTAL
			Never Moved		1 Time		2 Times		3 Times		4 Times		5 or More Times		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	%
1 Unskilled/ Semiskilled	82	28.0	51	62.2	15	18.3	8	9.7	5	6.1	-	--	3	3.7	100.0
2 Skilled	101	34.5	49	48.6	19	18.8	10	9.9	6	5.9	6	5.9	11	10.9	100.0
3 Semiprof./ Sm. Bus.	85	29.0	42	49.3	10	11.8	10	11.8	6	7.1	1	1.2	16	18.8	100.0
4 Prof./Mgr. 2 and 1	25	8.5	9	36.0	5	20.0	4	16.0	2	8.0	2	8.0	3	12.0	100.0
TOTAL	293	100.0	151	(51.5)	49	(16.7)	32	(10.9)	19	(6.5)	9	(3.1)	33	(11.3)	(100.0)

Chi-square = 22.81, 15 degrees of freedom, Sig. = 0.088 level

the last mobility category of "moved 5 or more times" increased for every occupational level to a proportion greater than either of the next two or three less mobile categories.

An overall distribution pattern existed which showed that there was less family geographic mobility for the lower occupational level groups, especially across the first three levels. The fourth level, Professional, presented a somewhat different pattern. As a whole, half the families of the students in this sample had always lived in Wichita. But for those families whose father's occupation was at the Unskilled or Semiskilled level, the proportion of families who always lived in Wichita went up to 62.2 percent; and for those fathers whose occupation was at the Professional level, the proportion dropped to 36.0 percent. The percent distributions of the first three occupational levels across the mobility categories of "moved 1 time" through "moved 4 times" reflected, in general, the overall pattern of less mobility associated with lower occupational level.

The 33 cases in the mobility category of "moved 5 or more times" presented a distribution different from that of the other categories. Considering those 33 cases as a subsample, their distribution across the occupational levels was as follows: Unskilled and Semiskilled, 9.1 percent; Skilled, 33.3 percent; Semiprofessional, 48.5 percent; and Professional, 9.1 percent. The largest percent group in the category of most geographic mobility was that of the Semiprofessional level and, at the same time, nearly half of the cases in this occupational level, 49.3 percent, had always lived in Wichita, or had lived there for at least the 16 or more years of the life of the family member responding to this question.

The Professional level displayed a percent distribution which declined across the categories of increasing mobility except for the last category where the percent, as in the other levels, increased to a proportion greater than either of the two previous mobility categories.

Analysis was not made of the occupations represented by the 33 cases in the category of most mobility. But, because of the installation of a United States Air Force base in Wichita, which might have contributed a higher level of mobility for students whose fathers were in the Air Force, a check was

made of the military occupations listed for the fathers. There were only three fathers whose occupations were listed as military; two as "military" and one as "Air Force." Therefore, the military contributed little, if any, to the mobility of the families of students in this sample.

Students' Plans for Schooling After High School

Students' Decisions About Schooling After High School: When asked if they planned to go on to school after high school, the students responded as follows:

Responses		
N	%	Response Options
167	45.7	Yes
85	23.3	No
113	31.0	Not sure

Table 11 presents the cross-tabulations of these responses by curriculum, by type of class, by sex, and by student's average grades. A greater percent of Office students were more sure of their decision to go on to school after high school than were students in other curricula; this curriculum had the highest proportion, 55.7 percent, in the "yes" category and the lowest proportion, 21.6 percent, in the "not sure" category. HERO students, on the other hand, reflected a position of not having made a decision yet with the largest group, 42.2 percent, in the "not sure" category and the smallest group, 25.3 percent, in the "yes" category. The HERO students also had the largest group of the four curricula in the "no" category with 32.5 percent of their responses. Students in the Distributive and the Industrial programs responded similarly to this question with nearly half, 44.5 percent of the Distributive students and 48.1 percent of the Industrial students, indicating a decision to continue their education after high school.

When these responses were cross-tabulated with the type of class in which the student was enrolled, the analysis provided a profile of plans by type of class and, in effect, by grade level of the student. In this cross-tabulation, 43.9 percent of the students in the cooperative classes and 53.3 percent of the students in the senior level, not cooperative classes

TABLE 11. STUDENT'S PLANS FOR SCHOOLING AFTER HIGH SCHOOL BY CURRICULUM, BY TYPE OF CLASS, BY SEX, AND BY STUDENT'S AVERAGE GRADES

	TOTAL		PLANNING FOR SCHOOL AFTER HIGH SCHOOL						
			Yes		No		Not Sure		TOTAL
	N	%	N	%	N	%	N	%	%
CURRICULUM:									
Dist.	63	17.3	28	44.5	12	19.0	23	36.5	100.0
HERO	83	22.7	21	25.3	27	32.5	35	42.2	100.0
Office	167	45.8	93	55.7	38	22.7	36	21.6	100.0
Indus.	52	14.2	25	48.1	8	15.4	19	36.5	100.0
TOTAL	365	100.0	167	(45.8)	85	(23.3)	113	(30.9)	100.0
TYPE OF CLASS:									
Coop	198	54.2	87	43.9	47	23.8	64	32.3	100.0
Sr. Level Not Coop	135	37.0	72	53.3	26	19.3	37	27.4	100.0
Jr./Sr. Related	32	8.8	8	25.0	12	37.5	12	37.5	100.0
TOTAL	365	100.0	167	(45.8)	85	(23.3)	113	(30.9)	100.0
SEX:									
Male	81	22.2	41	50.6	14	17.3	26	32.1	100.0
Female	284	77.8	126	44.4	71	25.0	87	30.6	100.0
TOTAL	365	100.0	167	(45.8)	85	(23.3)	113	(30.9)	100.0
STUDENT'S AVERAGE GRADES:									
A's and B's	110	30.1	61	55.5	24	21.8	25	22.7	100.0
B's and C's	181	49.6	87	48.1	37	20.4	57	31.5	100.0
C's and D's	71	19.5	19	26.8	21	29.6	31	43.6	100.0
D's and F's	3	0.8	--	--	3	100.0	--	--	100.0
TOTAL	365	100.0	167	(45.8)	85	(23.3)	113	(30.9)	100.0

indicated their intention to go on to school. All of these students were seniors. The second largest percent group in these two types of classes, 32.3 percent of the cooperative class students and 27.4 percent of the senior level, not cooperative class students, were not yet sure of their post-high school plans for further education. The remaining 23.8 percent of the cooperative students and 19.3 percent of the senior level, not cooperative class students marked the "no" category indicating they did not plan any further education beyond high school.

The students in the junior/senior related classes responded very differently to this question than did the other two groups. One fourth of this group planned to continue their education beyond high school and the remaining three fourths were equally divided between the categories of "not sure" and "no." However, this distribution was meaningful only for reviewing the responses of the 32 persons in this comparatively small group. The majority of this group, 27 of the 32, were HERO students who had already been described as a group generally more undecided than other curricula and who had proportionately fewer students planning to continue their education.

There was very little difference between the students relative to their decision about further education when compared on the basis of their sex. Approximately one half of each group planned further education; slightly more males, 50.6 percent, than females, 44.4 percent, planned to continue their education. Approximately one third of each group, 32.1 percent of the males and 30.6 percent of the females, responded that they were "not sure" of their plans.

The cross-tabulation by student's average grades showed a pattern of distribution where the lower the student's average grades, the smaller the proportion of students planning to go on to school after high school. About half of the A and B and the B and C students planned to continue their education: 55.5 percent of the A and B students and 48.1 percent of the B and C students were in this category. The proportion dropped to 26.8 percent of the C and D students who planned further education. However, most of the differences in percents were between the "yes" categories and the "not sure" categories with little difference between the "no" categories. The proportion of students in the "not sure" category were: 22.7 percent of the A and B

students, 31.5 percent of the B and C students, and 43.6 percent of the C and D students. This indicated that the proportion of students who did not plan to continue their education had little association with their average grades. As reported in detail in the next section, an association did exist between a student's average grades and the type of post-high school institution he planned to attend. The percents for each category of average grades of students who had no plans to continue their schooling were: 21.8 percent of the A and B students, 20.4 percent of the B and C students, and 29.6 percent of the C and D students.

There were only three students in the category of D and F average grades and all three of those students indicated that they did not plan to continue their education beyond high school.

Choice of Post-High School Institutions: Students who responded "yes" or "not sure" to the question of whether they had plans for schooling after high school were also asked to indicate their choice of the type of institution they planned to or might attend.

The selection of options for this question was made to cover the major types of institutions where students might seek post-high school education. Wichita students live in a community where they have access to information about these types of schools. With the exception of the public junior college option, one or more of the other three types of institutions are located in Wichita. There are, however, public junior colleges in nearby communities. Hence, Wichita students could be expected to have an understanding of the options.

Mention should also be made that all of the students in the sample in this study were enrolled in classes which were identified as area vocational-technical school (AVTS) classes although most of those students attended their vocational classes in their own high school. The exception was the group of Industrial students who were enrolled in classes at the Wichita Area Vocational-Technical Center offering only vocational and technical courses on a site adjacent to one of the city's six high schools but administered separately from that high school. The students attending classes at the Center were bussed from their own high school for their vocational classes and may have been more aware that they were AVTS students than those students attending vocational classes in their own high schools.

There were 285 responses to this question, 5 more than expected based upon the responses to the previous question. As Table 12 shows, 7 of those students who indicated that they did not plan to go on to school made a response to this question and 2 of those students who responded that they were not sure of their plans and from whom a response to this question might have been expected failed to make a response. All 285 responses were included in the analyses of this question.

The responses to this question were cross-tabulated by curriculum, by type of class, by sex, by the status of plans for post-high school education, and by average grades. For all 285 respondents, 52.3 percent planned to attend a 4-year college or university, 23.9 percent planned to attend a public AVTS, and the remaining 23.8 percent were nearly evenly divided between public junior colleges and nonpublic business and technical schools as their choice of a post-high school institution.

Over half, 55.8 percent, of the Distributive students indicated that their choice of a post-high school institution was a 4-year college and another 19.2 percent indicated their choice was a public junior college--twice the percent of any other curriculum for choosing public junior colleges. HERO and Industrial students displayed a choice pattern similar to each other in that approximately 40 percent of each group looked to the public AVTS for their further training and approximately one third of them planned to attend a 4-year institution.

The cross-tabulation based on type of class showed a similar pattern between students in cooperative classes and those in senior level, not cooperative classes in that over half of these students, all seniors, planned to attend a 4-year institution and only 11.8 percent and 10.1 percent respectively planned to attend a public junior college. Their patterns did differ, however, relative to public AVTS's where 24.8 percent of the cooperative students and 16.5 percent of the senior level, not cooperative students planned to attend.

The cross-tabulation on the basis of the sex of the student reflected the results of the curriculum cross-tabulation. While the largest group of both male and female students planned to attend 4-year institutions, male students leaned more heavily than did female students toward public AVTS's

TABLE 12. TYPE OF POST-HIGH SCHOOL INSTITUTION NAMED AS CHOICE OF STUDENTS ANTICIPATING SCHOOL BEYOND HIGH SCHOOL BY CURRICULUM, BY TYPE OF CLASS, BY SEX, AND BY STUDENT'S AVERAGE GRADES

	TOTAL		TYPE OF SCHOOL AFTER HIGH SCHOOL								TOTAL
			Public Jr. Coll.		Public AVTS		Nonpublic Bus./Tech		4-Year College		
	N	%	N	%	N	%	N	%	N	%	%
PLANNING FOR SCHOOL AFTER HIGH SCHOOL:											
Yes	167	58.6	12	7.2	26	15.5	17	10.2	112	67.1	100.0
No	7	2.5	1	14.3	6	85.7	--	--	--	--	100.0
Not Sure	111	38.9	17	15.3	36	32.4	21	19.0	37	33.3	100.0
TOTAL	285	100.0	30	(10.5)	68	(23.9)	38	(13.3)	149	(52.3)	100.0
CURRICULUM:											
Dist.	52	18.2	10	19.2	8	15.4	5	9.6	29	55.8	100.0
HERO	59	20.7	5	8.5	24	40.7	11	18.6	19	32.2	100.0
Office	129	45.3	11	8.5	16	12.4	17	13.2	85	65.9	100.0
Indus.	45	15.8	4	8.9	20	44.4	5	11.1	16	35.6	100.0
TOTAL	285	100.0	30	(10.5)	68	(23.9)	38	(13.3)	149	(52.3)	100.0
TYPE OF CLASS:											
Coop Sr. Level	153	53.7	18	11.8	38	24.8	17	11.1	80	52.3	100.0
Not Coop Jr./Sr. Related	109	38.2	11	10.1	18	16.5	18	16.5	62	56.9	100.0
	23	8.1	1	4.3	12	52.2	3	13.1	7	30.4	100.0
TOTAL	285	100.0	30	(10.5)	68	(23.9)	38	(13.3)	149	(52.3)	100.0
SEX:											
Male	68	23.9	10	14.7	23	33.8	7	10.3	28	41.2	100.0
Female	217	76.1	20	9.2	45	20.7	31	14.3	121	55.8	100.0
TOTAL	285	100.0	30	(10.5)	68	(23.9)	38	(13.3)	149	(52.3)	100.0
STUDENT'S AVERAGE GRADES:											
A's & B's	86	30.2	2	2.3	14	16.3	9	10.5	61	70.9	100.0
B's & C's	144	50.5	20	13.9	32	22.2	20	13.9	72	50.0	100.0
C's & D's	55	19.3	8	14.5	22	40.0	9	16.4	16	29.1	100.0
TOTAL	285	100.0	30	(10.5)	68	(23.9)	38	(13.3)	149	(52.3)	100.0

Chi-square = 28.59, 6 degrees of freedom, Sig. at .001 level

thus reflecting the choice of the Industrial curriculum which was made up entirely of males. Public AVTS's were the choice of the second largest group of both male and female students.

When analysis was made using students' average grades as the independent variable, significant differences appeared between the groups of students. A Chi-square value of 28.59 with 6 degrees of freedom was obtained in the analysis which was significant at the .001 level indicating that there was a significant relationship between grades and type of institution for planned attendance. The majority of A and B students, 70.9 percent, planned to attend 4-year institutions. The next largest group of A and B students, 16.3 percent, planned to attend a public AVTS and only 2.3 percent planned to attend a public junior college. The distribution was different for the B and C students where 50.0 percent planned to attend a 4-year institution, 22.2 percent planned to attend a public AVTS, and the remaining 27.8 percent were equally divided between the other two types of institutions. The C and D students reported a much different pattern with only 29.1 percent intending to go to a 4-year institution but 40.0 percent looking to the public AVTS for further education. The three students who reported their average grades as D and F did not respond to this question.

Post-High School Plans Compared With Father's Occupational Level: Because the father's occupational level has been accepted as a major influence factor on the plans of students relative to continuing their education after high school and, if the plans include continued education, influence on the type of institution chosen, cross-tabulations were made on the questions dealing with post-high school plans and choice of an institution using, as the independent variable, the father's occupational level. Again, the father's occupational level was divided into four groups as previously described in the section on family geographic mobility which combined the Roe matrix Levels 6 and 5 and Levels 1 and 2.

A Chi-square analysis was made on the cross-tabulation for father's occupational level and the student's stated plans for further education beyond high school. The cross-tabulations are reported in Table 13. This analysis produced a Chi-square value of 23.83 with 6 degrees of freedom which is significant at the .001 level indicating a strong relationship between

TABLE 13. STUDENTS' PLANS FOR SCHOOLING AFTER HIGH SCHOOL AND THEIR CHOICE OF A POST-HIGH SCHOOL INSTITUTION BY FATHERS' OCCUPATIONAL LEVEL

FATHERS' OCCUPATIONAL LEVEL	TOTAL		PLANNING FOR SCHOOL AFTER HIGH SCHOOL						TOTAL
			Yes		No		Not Sure		
	N	%	N	%	N	%	N	%	%
Unskilled/ Semiskilled	84	28.5	28	33.3	21	25.0	35	41.7	100.0
Skilled	102	34.5	40	39.2	28	27.5	34	33.3	100.0
Semiprof./ Sm. Bus.	84	28.5	51	60.8	16	19.0	17	20.2	100.0
Prof./Mgr. 2 and 1	25	8.5	18	72.0	1	4.0	6	24.0	100.0
TOTAL	295	100.0	137	(46.4)	66	(22.4)	92	(31.2)	100.0

Chi-square = 23.83, 6 degrees of freedom, Sig. at .001 level

FATHERS' OCCUPATIONAL LEVEL	TOTAL		TYPE OF SCHOOL AFTER HIGH SCHOOL								TOTAL
			Public Jr. College		Public AVTS		Nonpublic Bus./Tech.		4-Year College		
	N	%	N	%	N	%	N	%	N	%	%
Unskilled/ Semiskilled	64	27.5	11	17.2	19	29.7	11	17.2	23	35.9	100.0
Skilled	76	32.6	7	9.2	19	25.0	13	17.1	37	48.7	100.0
Semiprof./ Sm. Bus.	69	29.6	5	7.2	17	24.7	9	13.0	38	55.1	100.0
Prof./Mgr. 2 and 1	24	10.3	2	8.3	4	16.7	1	4.2	17	70.8	100.0
TOTAL	233	100.0	25	(10.7)	59	(25.3)	34	(14.6)	115	(49.4)	100.0

these two variables. The proportion of students who indicated they had plans for continuing their education was consistently larger with each higher level of father's occupation. One third of the students whose fathers were employed at the first level, Unskilled and Semiskilled, planned to continue their education. Slightly more, 39.2 percent, of those whose fathers were employed at the Skilled level planned further education. A higher proportion, 60.7 percent, of those whose fathers' occupations were at the Semiprofessional level and higher still, 72.0 percent, for those whose fathers were at the highest level, Professional, planned further education.

The major proportion of students who responded that they were not sure whether they would continue their education, indicating that they still considered it a possibility, came from families whose fathers were employed at the Skilled level or below. One third of the students whose fathers were employed at the Skilled level and 41.7 percent of those whose fathers were employed at the Unskilled and Semiskilled levels were considering further education a possibility. The proportion of students in this "not sure" category from families whose father was employed at the Semiprofessional level was 20.2 percent.

The proportion of students who had decided against further education and whose fathers were employed at the Unskilled and Semiskilled levels was 25.0 percent, similar to the 27.5 percent of those students whose fathers worked at the Skilled level. Slightly fewer, 19.0 percent of the students of Semiprofessional families had no plans for further education.

The students whose fathers were at the Professional 1 and 2 levels had the largest proportion of students planning on further education, 72.0 percent as previously reported, and an additional 24.0 percent who still considered it a possiblity for themselves. The number of students whose fathers were employed at the Professional 1 and 2 levels was small but only 1 of the 25 students in this group, 4.0 percent, indicated that he had no plans to continue his education.

The cross-tabulation of the type of post-high school institution which the student planned to attend with his father's occupational level was not statistically significant in a Chi-square analysis but the percent distributions did present a pattern. The choice of the 4-year institution accounted

for the largest group of the total distribution and the largest groups in each of the categories of the father's occupational level. However, the proportion varied across the father's occupational level, becoming increasingly greater with an increased occupational level of the father. The proportion of the students whose fathers were employed at the Unskilled and Semiskilled levels and whose choice was a 4-year institution was 35.9 percent; the proportions change to 48.7 percent of those from families at the Skilled level, 55.1 percent of those from families at the Semiprofessional level, and 70.8 percent of those from families at the Professional 1 and 2 levels.

The proportion of all students whose choice was a public AVTS was 25.3 percent, and the proportion within each occupational level of the father showed a consistent trend; the lower the father's occupational level, the more likely the student was to attend an AVTS. The proportions selecting a public AVTS were from the following occupational levels of the father: 29.7 percent of the Unskilled and Semiskilled levels, 25.0 percent from the Skilled level, 24.6 percent from the Semiprofessional level, and 16.7 percent from the Professional 1 and 2 levels.

Those selecting the public junior college accounted for 10.7 percent of the total distribution. Twice the percent of students from Unskilled and Semiskilled families, 17.2 percent, made this choice compared to the 8.3 percent of those from the Professional 1 and 2 families. Again, the number of students in the Professional 1 and 2 families category is small but the percents did provide an index for comparison.

Students from families at the Professional 1 and 2 levels were much less likely to plan to attend a nonpublic business or technical school than were students from the other occupational levels. Only 1 student, 4.2 percent of the respondents in the Professional 1 and 2 category, chose this option compared to the proportions which ranged from 13.0 percent to 17.2 percent of the students from the other occupational levels.

Overall, the percent who planned to attend a junior college was lower than was true in most parts of the United States and higher for the public area vocational-technical schools. This may reflect the developmental nature

and status of the different types of schools in Wichita and the fact that these students were, in reality, all AVTS students and may be more aware of AVTS course offerings than is true of most high school students.

STUDENTS' OCCUPATIONAL PREFERENCES

A series of questions was asked to gather data on: 1) what aspects of occupations were of most importance to the students, 2) the kinds of occupations they were considering entering, 3) what occupation was their choice, if they had made a choice, 4) what similarities or differences existed between their considered occupations and their occupational choice, and 5) what similarities or differences existed between their occupational choice and their fathers' or mothers' occupations.

The order in which the questions were asked was designed to elicit from the students some of their general impressions and preferences of selected aspects of occupations prior to asking the students questions which called for more specific information from them, such as, which occupations they were considering entering and which occupation was their choice, followed by several questions asking for specific information about their occupational choice.

Much of the data reported in this section deals with the occupational groups and levels as defined by Roe. The complete terminology used thus far in this report to describe the occupational groups, such as Service, and levels, such as Skilled, has included both a group or level number and a name. Because of the necessarily high frequency of naming these groups and levels, the number will be omitted hereafter. The group or level will be identified by its name which is descriptive.

Attributes of Jobs In General: The first question of this series asked what the student thought was the single most important thing a job should offer him. He was instructed to mark only one of the nine options or add his own comment in the tenth position among the options. No student added his own comment. The distribution of the 344 responses, representing 94.0 percent of the total sample, is detailed in Table 14.

TABLE 14. STUDENTS' CHOICE OF MOST IMPORTANT ATTRIBUTE OF JOBS IN GENERAL

Question: What is the single most important thing you think a job should offer you? Mark one item.

Responses N	Responses %		Response Options
27	7.8	1.	money
117	34.0	2.	being happy in your job
31	9.0	3.	job security, not afraid of losing your job
19	5.5	4.	pleasant working conditions
73	21.3	5.	job that is interesting and exciting
19	5.5	6.	having responsibility
15	4.4	7.	having nice people to work with
10	2.9	8.	using what you have learned
33	9.6	9.	chance to learn more
0	0.0	10.	other (if the items above do not include the answer you want to make, write your answer in the blank space on the answer sheet.)
344	100.0		

The first- and second-ranked items were clearly indicated by the percent of responses given to them. Option 2, "being happy in your job," was the single most important job attribute to the largest group of students having received 34.0 percent of the responses. The second largest group of respondents, 21.3 percent, selected option 5, "job that is interesting and exciting." The other individual options each received less than 10 percent of the responses. The two options selected by the majority of students implied the students' stated interest in intrinsic values in work rather than extrinsic ones.

Students' Choice of Job Autonomy: Students were asked to select, from three options, the degree of autonomy they wanted in the work they would do. There were 363 responses to this question. The largest group, 46.8 percent, indicated they would prefer to "work independently, work by (themselves)." The second largest group, 30.0 percent, selected the option "work under the direction of someone," and the remaining students, 23.2 percent, selected

the third option, "direct the work of other employees." No further analyses were made of these data.

Occupations Considered by Students

Item 20 of the Questionnaire asked the student, in open-ended question format, to give the three kinds of work he had given most serious thought to entering when he began full-time work. While the student was not asked to list those occupations in any order, his responses were identified as first-listed, second-listed, and third-listed considered occupations and each was coded by the Roe Occupational Classification scheme. If the student did priority-order his responses, which analyses of these data indicated was the case, that order was preserved by the handling of the data. Tables 15, 16, and 17 present these data in the form of number and percent distributions on the Roe matrix.

There were 348 responses, 95.1 percent of the total sample, to the first-listed considered occupation, 319 or 87.2 percent to a second-listed considered occupation, and 257 or 70.2 percent to a third-listed considered occupation.

Most Frequently Named Occupations: In each of the three matrices, Tables 15 through 17, the occupational group with the largest percent of preferences was Organization and the occupational level with the largest percent of preferences was Semiprofessional. More specifically, the cell at the intersection of the Organization group and the Semiprofessional level contained the largest number of occupational preferences of any cell in each of the three matrices. That one cell accounted for 32.8 percent of the total occupational preferences of the first-listed considered occupations, 20.4 percent of the second-listed, and 13.2 percent of the third-listed considered occupations. The high preference of this cell was, very likely, in part, a function of the curricula in which the students were enrolled since this occupational group included most of the clerical occupations, and the largest group of students in the sample were enrolled in office occupations programs.

While that matrix cell contained the largest percent of responses on each of the three matrices, the percent of total responses in that cell

TABLE 15. STUDENTS' FIRST-LISTED CONSIDERED OCCUPATION

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1	2 0.6%		1 0.3%			2 0.6%	6 1.7%	5 1.4%	16 4.6%
5 Prof./ Mgr. 2	18 5.2%	2 0.6%		5 1.4%		7 2.0%	10 2.9%	5 1.4%	47 13.5%
4 Semi-Prof./ Sm. Bus.	2 0.6%	2 0.6%	114 32.8%	9 2.6%	3 0.9%	5 1.4%	1 0.3%	2 0.6%	138 39.7%
3 Skilled	22 6.3%		24 6.9%	33 9.5%		1 0.3%		4 1.1%	84 24.1%
2 Semi-skilled	23 6.6%		31 8.9%	6 1.7%				1 0.3%	61 17.5%
1 Un-skilled	2 0.6%								2 0.6%
TOTAL	69 19.8%	4 1.1%	170 48.9%	53 15.2%	3 0.9%	15 4.3%	17 4.9%	17 4.9%	348 100%

TABLE 16. STUDENTS' SECOND-LISTED CONSIDERED OCCUPATION

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1	4 1.3%					5 1.6%	1 0.3%	2 0.6%	12 3.8%
5 Prof./ Mgr. 2	5 1.6%	2 0.6%	6 1.9%	3 0.9%	1 0.3%	15 4.7%	20 6.3%	6 1.9%	58 18.2%
4 Semi-Prof./ Sm. Bus.	3 0.9%	2 0.6%	65 20.4%	7 2.2%	3 0.9%	7 2.2%	4 1.3%	7 2.2%	98 30.6%
3 Skilled	26 8.2%		34 10.7%	21 6.6%	1 0.3%	3 0.9%		9 2.8%	94 29.5%
2 Semi-skilled	23 7.2%		28 8.8%	5 1.6%					56 17.6%
1 Un-skilled			1 0.3%						1 0.3%
TOTAL	61 19.1%	4 1.3%	134 42.0%	36 11.3%	5 1.6%	30 9.4%	25 7.8%	24 7.5%	319 100%

TABLE 17. STUDENTS' THIRD-LISTED CONSIDERED OCCUPATION

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1	2 0.8%					6 2.3%	2 0.8%	4 1.6%	14 5.4%
5 Prof./ Mgr. 2	13 5.1%	1 0.4%	2 0.8%			10 3.9%	27 10.5%	4 1.6%	57 22.2%
4 Semi-Prof./ Sm. Bus.	6 2.3%		34 13.2%	7 2.7%	4 1.6%	3 1.2%	1 0.4%	8 3.1%	63 24.5%
3 Skilled	14 5.4%		23 8.9%	15 5.8%	1 0.4%	3 1.2%	1 0.4%	6 2.3%	63 24.5%
2 Semi-skilled	22 8.6%		24 9.3%	10 3.9%				1 0.4%	57 22.2%
1 Un-skilled	1 0.4%			1 0.4%	1 0.4%				3 1.2%
TOTAL	58 22.6%	1 0.4%	83 32.3%	33 12.8%	6 2.3%	22 8.6%	31 12.1%	23 8.9%	257 100%

became progressively smaller from the first-listed to the second-listed to the third-listed considered occupations. Most of the other cells and the totals for groups and levels also had different percent distributions across the three matrices. Because these matrices present data from three separate responses or measures of occupational preference from students, differences between the percent of responses in a cell, level, or group across the three matrices can be observed and measured. In fact, a pattern of differences across the matrices was discernible.

Differences in Occupational Preferences of Considered Occupations: The differences between the matrices were identified by comparing the distributions of responses (shown by percent of total) across groups and levels between the first-listed and second-listed considered occupations and between the second-listed and third-listed considered occupations. There are three limitations to this procedure of analysis which must be recognized. First, the proportion of the total sample of 366 students who responded to each part of the question varied, as previously described. Therefore, the analysis was based upon the distribution of the percent of total responses in a given matrix and not upon the number of responses in given cells, groups, or levels.

Second, the analysis was based on the net differences of percents across groups and across levels. To further explain the necessity of recognizing that these differences were net, assume that in the comparison between first-listed and second-listed considered occupations there was a group of students whose first-listed response was classified as Group 4 and whose second-listed response was classified as Group 5. In the same comparison, assume that there was an identical number of students whose first-listed and second-listed responses were the opposite responses of the first group of students. These differences in responses would counterbalance each other and escape detection in the percent of total responses shown in the matrix.

Third, the analysis was limited by the procedure of comparing separately the differences across the eight occupational groups and the differences across the six occupational levels and not taking the entire Roe matrix and comparing the differences between all possible 48 cells simultaneously.

(Group Comparisons): The comparison of the percent distributions across occupational groups between the first- and second-listed considered occupations, Tables 15 and 16, revealed that there were 6.9 percent fewer students who named an Organization occupation and 3.9 percent fewer who named a Technology occupation as a second-listed occupational preference. The groups which had proportionately more occupations named as preferences were Science with 5.1 percent more responses, General Cultural with 2.9 percent more responses, and Arts and Entertainment with 2.6 percent more responses.

Comparing the matrices of second- and third-listed considered occupational preferences, Tables 16 and 17, the pattern of change established above continued with 9.7 percent fewer students naming Organization occupations, 0.9 percent fewer naming Business Contacts occupations, and 0.8 percent fewer naming Science occupations. The groups with a higher percent in the third-listed than in the second-listed occupations were General Cultural with 4.3 percent more responses, Service with 3.5 percent more responses, Arts and Entertainment with 1.4 percent more responses, and Outdoor with 0.7 percent more responses. Technology occupations had proportionately more, 1.5 percent, in the third-listed than in the second-listed occupations but had 3.9 percent fewer responses in the previous comparison between the first- and second-listed occupations.

(Level Comparisons): The first comparison of preferences of occupational levels, which was based on differences in the percent distributions from the first- to the second-listed occupations, showed there were 9.1 percent fewer responses at the Semiprofessional level, 0.8 percent fewer at the Professional 1 level, and 0.3 percent fewer at the Unskilled level for the second-listed preferences. The levels which had higher percents in this comparison were Skilled with 5.4 percent more responses, Professional 2 with 4.7 percent more responses, and Semiskilled with 0.1 percent more responses.

The second comparison of occupational levels, between the second- and the third-listed occupations, showed that Semiprofessional had 6.1 percent fewer responses and the Skilled level had 5.0 percent fewer responses, the same level which had 5.4 percent more responses in the previous comparison. The levels which had higher percents were Semiskilled with 4.6 percent more responses, Professional 2 with 4.0 percent more, Professional 1 with 1.6 percent more, and Unskilled with 0.9 percent more responses.

Overview of Changes Across First-, Second-, and Third-Listed Considered Occupations: An overall pattern of change was discernible from a review of the total matrices from the first-listed to the second-listed to the third-listed considered occupations and from the data previously presented of the net percent differences across those matrices by group and level. The change was primarily from an initial student preference for Organization occupations and the occupations in the two groups adjacent to that group, Technology and Business Contact, to a preference for General Cultural occupations and, to a lesser degree, for the occupations in the two groups adjacent to it, Science and Arts and Entertainment. The two groups adjacent to Science and Arts and Entertainment, namely Outdoor and Service, also had consistently higher percents in each comparison although not as high as the other groups.

The pattern of change across occupational levels showed proportionately fewer responses at the Semiprofessional level (39.7 percent to 24.5 percent) and more responses primarily at the Professional 2 level, some additional responses at the Professional 1 level, and, to a lesser degree, more at the Semiskilled level. Preference for the skilled level remained approximately 25 percent across the three matrices.

Characteristics of Students Who Have Made An Occupational Decision

A preliminary question was included in the Questionnaire which asked if the student had yet made a decision of the kind of work he would enter. There were responses to this question from the total sample, and of those, 205 were "yes" responses representing 56.0 percent of the sample who had made an occupational choice and the remaining 161 or 44.0 percent who reported that they had not made a choice. Those students responding "no" were instructed to skip several of the following questions which asked for information about the occupational choice which their response of "no" indicated they had not yet made. However, to every question, there were more than 205 responses. Not every student who answered "yes" to this question also made responses to the following several questions and some of the students who answered "no" did make responses. The responses to subsequent questions from students who responded "no" to this question have been retained in the data and analyses. Table 18 provides detail of the number and percent distributions of the "yes-no" responses by several other variables.

TABLE 18. STUDENTS WHO HAVE AND HAVE NOT MADE AN OCCUPATIONAL CHOICE BY CURRICULUM, BY TYPE OF CLASS, BY SEX, AND BY STUDENT'S AVERAGE GRADES

	TOTAL		HAVE MADE A CHOICE OF OCCUPATION				TOTAL
			Yes		No		
	N	%	N	%	N	%	%
CURRICULUM:							
Dist.	63	17.2	20	31.7	43	68.3	100.0
HERO	83	22.7	46	55.4	37	44.6	100.0
Office	168	45.9	101	60.1	67	39.9	100.0
Indus.	52	14.2	38	73.1	14	26.9	100.0
TOTAL	366	100.0	205	(56.0)	161	(44.0)	100.0
TYPE OF CLASS:							
Coop	199	54.4	103	51.8	96	48.2	100.0
Sr. Level Not Coop	135	36.9	86	63.7	49	36.3	100.0
Jr./Sr. Related	32	8.7	16	50.0	16	50.0	100.0
TOTAL	366	100.0	205	(56.0)	161	(44.0)	100.0
SEX:							
Male	81	22.1	49	60.5	32	39.5	100.0
Female	285	77.9	156	54.7	129	45.3	100.0
TOTAL	366	100.0	205	(56.0)	161	(44.0)	100.0
STUDENT'S AVERAGE GRADES:							
A's and B's	110	30.0	67	60.9	43	39.1	100.0
B's and C's	181	49.5	105	58.0	76	42.0	100.0
C's and D's	72	19.7	31	43.1	41	56.9	100.0
D's and F's	3	0.8	2	66.7	1	33.3	100.0
TOTAL	366	100.0	205	(56.0)	161	(44.0)	100.0

By curriculum, there were great differences between the percent distributions of "yes" and "no" responses. The curriculum with the highest percent of students who had made an occupational choice, 73.1 percent, was the Industrial and the curriculum with the lowest percent, 31.7 percent, was the Distributive. The percents of HERO and Office students who responded "yes" to having made an occupational choice were similar, 55.4 percent of the HERO students and 60.1 percent of the Office students.

When the responses were categorized by type of class in which the student was enrolled or by the student's sex, very little difference appeared. More of the senior level, not cooperative, students, 63.7 percent, reported that they had made an occupational choice than did the 51.8 percent of the cooperative students or the 50.0 percent of the junior/senior related students who also reported having made a choice. The comparison between male and female students indicated that more male than female students, 60.5 percent compared with 54.7 percent respectively, reported that they had made an occupational choice.

The analysis of these data by the student's reported average grades showed a pattern of decreasing percents of students who have made an occupational choice with decreasing grade averages. More than half, 60.9 percent, of the students who reported mostly A's and B's and 58.0 percent of those who reported mostly B's and C's had made an occupational choice. The percent dropped to 43.1 percent of those who reported C's and D's who had made an occupational choice. The other category, students who reported D's and F's, had only three students and the percent distribution of those students was not meaningful due to the small number. Two of those three students had made a choice, one had not.

Students' Occupational Choices

In open-ended question format, students were asked to give the kind of work they had decided to enter when they began full-time work. Their responses were coded by the Roe matrix and Table 19 shows, in matrix form, the number and percent of the total distribution by occupational group and level of the 216 responses to this question. This total was 9 more than the total students who indicated they had made a choice of an occupation. Appendix E provides the detailed list in the Roe matrix format of the

TABLE 19. STUDENTS' OCCUPATIONAL CHOICE

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1	2 0.9%						2 0.9%	1 0.5%	5 2.3%
5 Prof./ Mgr. 2	12 5.6%	1 0.5%	1 0.5%	4 1.9%		7 3.2%	6 2.8%	4 1.9%	35 16.2%
4 Semi-Prof./ Sm. Bus.	3 1.4%	1 0.5%	71 32.9%	4 1.9%		3 1.4%	2 0.9%	2 0.9%	86 39.8%
3 Skilled	10 4.6%		20 9.3%	23 10.6%	1 0.5%	2 0.9%		3 1.4%	59 27.3%
2 Semi-skilled	16 7.4%		13 6.0%	2 0.9%					31 14.4%
1 Un-skilled									--
TOTAL	43 19.9%	2 0.9%	105 48.6%	33 15.3%	1 0.5%	12 5.6%	10 4.6%	10 4.6%	216 100%

occupations named and the frequency with which each occupation was named by the students as choices to enter when they began full-time work.

Occupational Choice Compared With First-Listed Considered Occupation: The same procedure as described in the previous section for analysis of the net differences in the percents of students' responses in a given group or at a given level was used for these data to compare the student's occupational choice matrix with the first-listed considered occupation matrix. The percent distribution across occupational groups in the occupational choice matrix was very similar to the distribution in the first-listed considered occupation shown in Table 15, they differed no more than 0.4 percent in any group percent except in Science where there were 1.3 percent more responses in the occupational choice matrix than there were in the first-listed considered occupation matrix. Because of this similarity, the first-listed matrix was used for comparison with the occupational choice matrix and the second- and third-listed considered matrices were not included in this analysis.

The percent distribution across occupational levels clustered primarily at the Semiprofessional level and, to a lesser degree at the Skilled level. The percents of students whose first-listed considered occupation and whose occupational choice were at the Semiprofessional level differed only 0.1 percent. Fewer students, 2.3 percent, selected occupations in the highest level, Professional 1, and more students, 2.7 percent, selected occupations at the Professional 2 level than had first-listed as the occupation they were considering entering. A similar counterbalanced difference in percents appeared at the Skilled and Semiskilled levels where 3.2 percent more students chose occupations at the Skilled level and 3.1 percent fewer students chose occupations at the Semiskilled level than occupations named at those levels as their first-listed considered occupation.

Most Frequently Named Occupations As Students' Choices: The matrix cell at the intersection of Group 3, Organization, and Level 4, Semiprofessional, contained the largest number of responses of all the cells in the matrix. This was also true in each of the three matrices reporting the occupations being considered by the students. Of the 71 responses of occupations classified in that cell as the occupational choice of students,

61 were "secretary." The occupation of "secretary" was named 159 times of the 213 named occupations classified in that cell in the combined first-, second-, and third-listed considered occupations in Tables 15, 16, and 17.

The occupations of "elementary teacher" and "secondary teacher" were the most frequently named occupations in the cell intersecting the General Cultural group and the Professional 2 level. In the combined first-, second-, and third-listed considered occupations, these occupations accounted for 50 of the 73 occupations named in that cell. However, the occupation of "teacher," including both the elementary and secondary teacher, was named only 3 times in the matrix of students' occupational choices.

Choice of Occupational Group by Curriculum: Tables 20A and 20B provide the detail of the students' choices of occupational group and occupational level by the curriculum in which they were enrolled. The Organization group contained almost half, 48.6 percent, of the named choice of occupations which was the largest percent in this distribution. By curriculum, Organization contained the largest group of the occupational choices of Office students with 73.1 percent, the largest group of Distributive students with 38.2 percent, and the second-largest group of HERO students with 34.1 percent.

This clustering of occupational choices might be expected since the Organization group includes clerical and secretarial occupations for which Office occupations programs provide training and the retail and specialty sales occupations for which Distributive occupations programs provide training. The 16 HERO students, who made up the second-largest group of 34.1 percent in that curriculum and who selected occupations classified in Organization, had to have "crossed over" the generally identified occupational clusters line to select these occupations. Specific analysis was not made to determine which occupations in this group were the choice of those HERO students but, aside from the retail sales and clerical occupations, there remained only a few occupations, such as buyer, ticket agent, key punch operator, computer operator, and computer programmer, which these students may have named. But, because the number of HERO students in this occupational group exceeded the number of occupations named outside the sales and clerical occupations, some of their number must be included among those who made an occupational choice in sales and clerical occupations.

TABLE 20A. STUDENT'S CHOICE OF OCCUPATIONAL GROUP BY CURRICULUM

OCCUP. GROUP	TOTAL		CURRICULUM							
			Distributive		HERO		Office		Industrial	
	N	%	N	%	N	%	N	%	N	%
Service	43	19.9	3	14.3	23	48.9	13	12.0	4	10.0
Business Contact	2	0.9	2	9.5	-	--	-	--	-	--
Organi-zation	105	48.6	8	38.2	16	34.1	79	73.1	2	5.0
Technology	33	15.3	2	9.5	2	4.3	1	0.9	28	70.0
Outdoor	1	0.5	-	--	-	--	-	--	1	2.5
Science	12	5.6	-	--	5	10.6	6	5.6	1	2.5
General Cultural	10	4.6	4	19.0	-	--	6	5.6	-	--
Arts/Enter-tainment	10	4.6	2	9.5	1	2.1	3	2.8	4	10.0
TOTAL	216	100.0	21	100.0	47	100.0	108	100.0	40	100.0
% of TOTAL SAMPLE	(366)	59.0	(63)	33.3	(83)	56.6	(168)	64.3	(52)	76.9

TABLE 20B. STUDENT'S CHOICE OF OCCUPATIONAL LEVEL BY CURRICULUM

OCCUPATIONAL LEVEL										
Unskilled	-	--	-	--	-	--	-	--	-	--
Semiskilled	31	14.4	-	--	19	40.4	10	9.3	2	5.0
Skilled	59	27.3	11	52.4	10	21.3	14	13.0	24	60.0
Semiprof./ Sm. Bus.	86	39.8	6	28.6	11	23.4	62	57.3	7	17.5
Prof./Mgr. 2	35	16.2	2	9.5	7	14.9	19	17.6	7	17.5
Prof./Mgr. 1	5	2.3	2	9.5	-	--	3	2.8	-	--
TOTAL	216	100.0	21	100.0	47	100.0	108	100.0	40	100.0
% of TOTAL SAMPLE	(366)	59.0	(63)	33.3	(83)	56.6	(168)	64.3	(52)	76.9

The Service group contained only 19.9 percent of all occupations named as students' choices but accounted for 48.9 percent of the occupational choices of HERO students. Included in this group are occupations for which HERO programs provide training such as child care, food services, and other personal and public service occupations. This group also includes many health services occupations.

The clear majority of Industrial students, 70.0 percent, selected occupations in Technology. This occupational group represents the most diverse group of occupations named as students' choices and includes the most frequently named occupations of "auto mechanic" and "printer" and the less frequently named occupations of "draftsman," "cabinet maker," "carpenter," "auto body worker," "repairman," and "plastics worker."

Also included in Table 20A are the number and percents of students in each curriculum who indicated an occupational choice. A comparison of just the number of respondents by curriculum who had made a choice in this table with Table 18, which reported the student's indication of whether he had made an occupational choice, allowed identification by curriculum of the source of the additional 11 responses in Tables 20A and 20B. The additional responses came from the following curricula: 1 from Distributive, 1 from HERO, 7 from Office, and 2 from Industrial which are somewhat in the same proportion to their numbers in the total sample.

The distribution across curricula again indicated that a higher proportion, 76.9 percent, of Industrial students had made an occupational choice; similar proportions of HERO and Office students had made a choice, 56.6 percent and 64.3 percent respectively; and 33.3 percent of the Distributive students had made such a choice.

Choice of Occupational Level by Curriculum: Table 20B provides the detail of the students' choices of occupational level by curriculum. Overall, Semiprofessional contained the largest group of occupations named, 39.8 percent, and Skilled contained the second-largest group, 27.3 percent. No student chose an occupation classified as Unskilled. By curriculum, the largest percent groups in three of the four curricula were included in the Skilled and Semiprofessional levels. More than half, 52.4 percent, of the Distributive students and 60.0 percent of the Industrial students selected

Skilled occupations. The Semiskilled level contained 57.3 percent of the occupations named by Office students. The greater proportion of the total responses contained in Semiprofessional were, in reality, a function of the number of Office students at that level more than it was a reflection of the proportion of students by curriculum. The 62 Office students who made up 57.3 percent of that curriculum and who also selected Semiprofessional occupations represented more students than the 11 or 52.4 percent of Distributive students and the 24 or 60.0 percent of Industrial students who also selected Skilled occupations.

HERO students were distributed more uniformly across the levels with the largest group, 40.4 percent, selecting occupations at the Semiskilled level. These occupations, as named by the students, included child care personnel, nurse aides, and waitresses.

Analysis by cross-tabulation of the choice of occupational group and occupational level by type of class in which the students were enrolled and by the sex of the student were omitted from the report because they showed a distribution which was a function of and explained by the distribution by curriculum which has been presented.

When Occupational Choice Was Made: Of much importance to the data on adolescents' occupational choice and theories of career choice-making and development are data on when the currently held occupational choice was made--how long had that occupation been the individual's choice. A question was included to gather such data from the students in this sample. The multiple-choice options provided four time periods within which the student could indicate how long ago his occupational choice had been made. Table 21 shows various distributions of these responses. Almost half the respondents to this question, 48.9 percent, indicated they had made their choice of an occupation within the previous year and another 28.4 percent indicated their choice had been made between one and two years previous.

The distribution of these responses by curriculum indicated that a greater proportion of Distributive students, 69.2 percent, had made their choice within the previous year. Industrial students had a more equal distribution across the time period options with 30.0 percent who had made their choice within the previous year, 35.0 percent between one and two years

TABLE 21. DISTRIBUTION OF RESPONSES OF WHEN CHOICE OF OCCUPATION WAS MADE BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		WHEN CHOICE OF OCCUPATION WAS MADE								
			Within Last Year		1 to 2 Years Ago		Long Ago		Always Choice		TOTAL
	N	%	N	%	N	%	N	%	N	%	%
CURRICULUM:											
Dist.	26	11.5	18	69.2	5	19.2	1	3.9	2	7.7	100.0
HERO	47	20.9	28	59.6	8	17.0	5	10.6	6	12.8	100.0
Office	112	49.8	52	46.4	37	33.0	18	16.1	5	4.5	100.0
Indus.	40	17.8	12	30.0	14	35.0	9	22.5	5	12.5	100.0
TOTAL	225	100.0	110	(48.9)	64	(28.4)	33	(14.7)	18	(8.0)	100.0
TYPE OF CLASS:											
Coop	120	53.3	62	51.7	30	25.0	18	15.0	10	8.3	100.0
Sr. Level Not Coop	88	39.1	41	46.6	29	32.9	13	14.8	5	5.7	100.0
Jr./Sr. Related	17	7.6	7	41.2	5	29.4	2	11.8	3	17.6	100.0
TOTAL	225	100.0	110	(48.9)	64	(28.4)	33	(14.7)	18	(8.0)	100.0
SEX:											
Male	52	23.1	20	38.4	16	30.8	9	17.3	7	13.5	100.0
Female	173	76.9	90	52.0	48	27.7	24	13.9	11	6.4	100.0
TOTAL	225	100.0	110	(48.9)	64	(28.4)	33	(14.7)	18	(8.0)	100.0

previous, and the remaining 35.0 percent either long ago or always had that occupation as their choice. Office students reflected occupational decisions made longer ago than students in Distributive or HERO programs. Just under half of them, 46.4 percent, made their choice within the previous year but a third, 33.0 percent, made their choice between one and two years previous and 16.1 percent made their choice "long ago." HERO students, like Industrial students, were relatively distributed across the time period options: 59.6 percent had made their choice within the previous year, 17.9 percent had made it between one and two years previous, 10.6 percent had made their choice "long ago," and 12.8 percent had always considered that occupation as their choice representing the largest percent in that option.

By type of class, the distribution differed very little from the distribution as a whole across the time period options. The percents of students who made their occupational choice within the two previous years were, by type of class, 76.7 percent of the cooperative students, 79.5 percent of the senior level, not cooperative, students, and 70.6 percent of the junior/senior related students. The remaining percents, 23.3 percent of the cooperative students, 20.5 percent of the senior level, not cooperative, students, and 29.4 percent of the junior/senior related students had made their choice long ago or always considered their reported occupation as their choice.

By sex, the distribution varied from the total distribution. Over half, 52.0 percent, of the female students had made their occupational choice within the previous year which differed from the 38.4 percent of the male students who made their choice within that time. Conversely, the percents of male students were greater than those of female students in the other time periods reflecting a decision made longer ago than the previous year. It is recognized that the numbers of students in the fourth category, those whose current occupational choice had always been their choice, were small but there were proportionately twice as many male students as female students, 13.5 percent compared to 6.4 percent respectively, in that category.

Training Needed for Occupational Choice: The question was asked about the amount of training/education the student felt he needed for his occupational choice. The assumption was made that the student had, to some degree,

taken this factor into consideration in his occupational choice-making process. The number and percent distribution of responses are shown below.

AMOUNT OF TRAINING/EDUCATION NEEDED BY STUDENTS FOR THEIR CHOICE OF AN OCCUPATION

Responses N	Responses %	Response Options
12	5.2	1. less than high school education
74	32.5	2. high school education
36	15.6	3. high school education plus apprenticeship
53	23.1	4. one or two years training beyond high school
40	17.5	5. 4-year college education
14	6.1	6. more than 4 years of college
229	100.0	TOTAL

Educational Expectations and Choice of Occupational Levels: While the Roe classification of occupational level is based on more factors than the amount of education required for an occupation, much association between occupational level and needed education can be inferred. However, a factor which complicates the assigning of needed education for specific occupational levels is the difference between the amount of education which currently employed workers in a given occupation have and the amount of education currently needed to enter that occupation. For instance, a father with less than a high school education may be employed in an occupation which would demand of his son a high school education or possibly more to enter that occupation now. Because the students in this study will be entering occupations for the first time, the educational standard which they must meet was used as the criterion for these analyses.

Unskilled and Semiskilled occupations generally require only a high school education or even less while Skilled occupations generally require a level of education and training ranging from a high school diploma to one or two years of training beyond high school, some of which might be through an apprenticeship program. The majority of Semiprofessional occupations generally require at least two years beyond high school if not four years

of college. However, this level includes the occupation of "secretary" which was named as the occupational choice of many students but which would not necessarily require two to four years of college work. The two levels of Professional and Managerial occupations would usually require a bachelor's degree or more.

These described relationships between occupational level and needed education and training formed the assumptions on which several analyses by cross-tabulations were made. Cross-tabulations were made of students' responses of their educational expectations, the amount of education they thought was needed for their occupational choices, and the level of their occupational choices.

Educational Expectations Compared With Education Needed for Occupational Choice: A cross-tabulation of the student's plans for schooling after high school by the amount of education he thought was needed for his occupational choice showed that 27 or 22.5 percent of those planning post-high school education indicated that their occupational choices required a high school education or less, thus making further education unnecessary. Of those students not planning further education, 18 or 32.8 percent indicated they thought that post-high school education was needed for their occupational choice. These figures show that 45 students had major discrepancies between their educational expectations and what they saw as necessary for their occupational choice. Over half of the 60 students who were "not sure" about going on to school, 32 or 53.4 percent, indicated they thought that post-high school education was needed for their choice of an occupation.

Choice of Occupational Level Compared With Education Needed for Occupational Choice: The cross-tabulation of level of a student's occupational choice by the amount of schooling he thought was necessary for that choice showed that 118 or 55.4 percent of the 213 students in this analysis were realistic in their responses, based upon the previously discussed educational requirements for various levels of occupations. The discrepancies showed that many students overestimated and a few others underestimated the education required for their choice of occupational level. Fourteen of the 30 students who chose a Semiskilled occupation, needing no post-high school education, indicated that they thought more education was necessary,

all the way from post-high school apprenticeship programs to post-graduate college work. On the other hand, 8 of the 34 students who chose a Professional and Managerial 2 occupation thought that the education needed for those occupations was from less than a high school education to two years of post-high school education. The students who chose Skilled occupations were clustered in approximately thirds in the three categories of needed education of high school level, high school plus apprenticeship, and high school plus two years of training. Because Skilled occupations include such a wide range of specific occupations, these responses could be relatively accurate. But 5 of the students in this group thought they could manage a Skilled occupation with less than a high school education and 2 felt that a 4-year college education was needed.

Students who chose Semiprofessional occupations also chose needed educational levels from less than high school through post-graduate college work. Of the 86 students chosing Semiprofessional occupations, 24 or 27.9 percent thought that two years beyond high school was sufficient education, 13 or 15.1 percent thought that four or more years of college was necessary. Eight of those students, or 9.3 percent, thought that apprenticeship programs beyond high school were sufficient and 1 student thought that his Semiprofessional occupation could be handled with less than a high school education. The remaining 40 students or 46.5 percent of those choosing Semiprofessional occupations thought that a high school education was sufficient. Many of these students undoubtedly were Office students who chose "secretary" as their occupational choice; and they were probably aware that they could begin clerical and junior secretarial positions with a high school education in which case these responses were not inaccurate.

Education Needed For Occupational Choice Compared With Choice of Post-High School Institution: The cross-tabulation of the student's determination of the amount of education needed for his occupational choice by the type of post-high school institution he planned to attend showed some inconsistencies between the educational needs the student indicated he had and his plans for fulfilling those needs. Of the 184 students in this analysis, 52 or 28.3 percent thought their occupational choice required a four-year or more college education and 44 of those students planned to attend a four-year

college. While the question which asked the student what type of post-high school institution he planned to attend did not ask if he planned to complete a program or degree, 57 students who indicated they planned to attend a 4-year college also indicated that their occupational choice required anywhere from less than high school education through high school plus two years of additional education.

Nine of the 23 students planning to attend a nonpublic business or technical college and 15 of the 47 students planning to attend a public AVTS indicated that a high school education or less was sufficient for their occupational choice indicating that they planned to get more education than they thought was necessary for their occupational choice.

Choice of Occupational Level Compared With Choice of Post-High School Institution: A final analysis by cross-tabulation was of choice of occupational level by choice of the type of post-high school institution of anticipated attendance which showed that the majority of those students who chose Professional and Managerial occupations, 30 of the 37 students, planned to attend a 4-year college; 3 planned to attend a public junior college, possibly with plans for later transfer to a 4-year institution, and 4 planned to attend a public AVTS. The majority, 41 of the 64 students who chose Semiprofessional occupations, planned to attend a 4-year college while 9 planned to attend a nonpublic business or technical college, 10 planned to attend a public AVTS, and 4 planned to attend a public junior college.

Students whose choice of occupation was at the Skilled level primarily chose to attend a public AVTS as 22 of the 48 students indicated. The next largest group, 13 students, planned to attend a 4-year college, 9 planned to attend a nonpublic business or technical college, and 4 chose a public junior college for further education.

The students who chose occupations at the Semiskilled level probably reflected less realistic plans for needed further education. Semiskilled occupations do not usually require post-high school training yet the post-high school plans for the 26 students in this category were: 9 chose to attend a 4-year college, 9 chose to attend a public AVTS, 6 chose to attend a nonpublic business or technical college, and 2 chose to attend a public junior college.

Summary: These analyses indicate that these students as a group were somewhat more realistic than high school students in general about the proportion of occupations which require a 4-year college education, especially those students who chose occupations at the Semiprofessional and Professional and Managerial levels. This was indicated by the 23.0 percent of the 213 students who indicated that their occupational choice required a 4-year college education and their choice of a post-high school institution in which to get that needed education.

While the measures of both occupational level and needed education for those levels are not precise, over half, 55.4 percent of the students, indicated an amount of education which coincided with generally accepted amounts of education needed for entry into the broad categories of occupational level. Those students who seemed to be less realistic or less knowledgeable about the needed education for their occupational choice were those students who chose the Semiskilled occupations, almost half of whom planned post-high school education which is generally not necessary.

Present Schooling Helpful in Future Job: When asked if they felt that what they were studying in school "now" would be helpful to them in their job when they began full-time employment, 229 students or 62.6 percent of the total sample responded to the question. A two-thirds majority of the respondents, 67.2 percent, selected the option that they felt their school work would be "of great help." Table 22 gives the cross-tabulations of these data.

Using curriculum as the other independent variable, a Chi-square value of 21.40 with 6 degrees of freedom was obtained which was significant at the .01 level which indicated a relationship between a student's curriculum and his feeling of the relative helpfulness of his school work to his first full-time job. Inspection of the frequency distribution across curricula revealed that the degree of helpfulness which students felt their school work would be to them on the job differed markedly. Using the percent distribution for ease in comparing figures, the majority of Industrial students, 87.5 percent, felt their school work would be "of great help" and another 10.0 percent felt it would be " of a little help." Distributive students, on the other hand, were less enthusiastic about the value of their school work to their future

TABLE 22. RELATIVE HELPFULNESS OF SCHOOL WORK TO FUTURE EMPLOYMENT BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		RELATIVE HELPFULNESS OF SCHOOL WORK						
			Of Great Help		Of a Little Help		Of No Help At All		TOTAL
	N	%	N	%	N	%	N	%	%
CURRICULUM:									
Dist.	28	12.2	12	42.8	11	39.3	5	17.9	100.0
HERO	49	21.4	27	55.1	17	34.7	5	10.2	100.0
Office	112	48.9	80	71.4	27	24.1	5	4.5	100.0
Indus.	40	17.5	35	87.5	4	10.0	1	2.5	100.0
TOTAL	229	100.0	154	(67.2)	59	(25.8)	16	(7.0)	100.0
Chi-square = 21.40, 6 degrees of freedom, Sig. at .01 level									
TYPE OF CLASS:									
Coop	122	53.3	80	65.6	32	26.2	10	8.2	100.0
Sr. Level Not Coop	87	38.0	60	69.0	22	25.3	5	5.7	100.0
Jr./Sr. Related	20	8.7	14	70.0	5	25.0	1	5.0	100.0
TOTAL	229	100.0	154	(67.2)	59	(25.8)	16	(7.0)	100.0
SEX:									
Male	54	23.6	42	77.7	9	16.7	3	5.6	100.0
Female	175	76.4	112	64.0	50	28.6	13	7.4	100.0
TOTAL	229	100.0	154	(67.2)	59	(25.8)	16	(7.0)	100.0

employment. While only 28 Distributive students responded to this question, 42.8 percent of them indicated they felt their school work would be "of great help," 39.3 percent felt it would be "of a little help," and 17.9 percent, the largest group of all curricula in this category, felt that it would be "of no help at all."

When these responses were cross-tabulated by type of class, the percent distributions were nearly identical. The percents, by type of class, of students who indicated that they felt their school work would be "of great help" were: Cooperative, 65.6 percent; senior level, not cooperative, 69.0 percent; and junior/senior related, 70.0 percent. The next largest percent groups for each type of class reported that their school work would be " of a little help" and the proportion of respondents in this category were: Cooperative, 26.2 percent; senior level, not cooperative, 25.3 percent; and junior/senior related, 25.0 percent.

The distribution by the sex of the students varied somewhat. The number of female respondents was three times that of the male respondents. Proportionately more male male students, 77.7 percent, than female students, 64.0 percent, felt that their school work would be "of great help" in their employment. More female than male students, 38.6 percent and 16.7 percent respectively, felt their school work would be "of a little help." A small proportion of male students, 5.6 percent, and of female students, 7.4 percent, felt it would be "of no help at all."

Relative Importance of Attributes of Student's Occupational Choice: Students were asked to rank the three most important attributes of their occupational choice from a list of six options and one option entitled "other" in which they could add an unlisted attribute of their choice. The students were to give three responses: indication of the attribute which was "most important," "second most important," and "third most important" to them. As many as 615 different responses across all options could be expected, three from each of the 205 students who indicated they had chosen an occupation; there were 607 total responses to this question.

Table 23 provides the detail of number and percent distributions of the relative importance to the students of the attributes. A sum of ranks value was computed to indicate the overall weighted value with which each attribute

TABLE 23. RELATIVE IMPORTANCE OF ATTRIBUTES OF OCCUPATIONS NAMED AS STUDENTS' OCCUPATIONAL CHOICES

	Sum of Ranks	RELATIVE IMPORTANCE OF ATTRIBUTE					
		Most Important		Second Most Important		Third Most Important	
		N	%	N	%	N	%
ATTRIBUTE OF OCCUPATION:							
Salary	306	43	20.8	60	29.9	57	28.7
Challenge & Excitement	291	67	32.4	28	13.9	34	17.1
Working Conditions	266	39	18.8	53	26.5	43	21.6
Job Security	165	23	11.1	31	15.3	34	17.1
Desired Type of Activity	151	30	14.5	22	10.9	17	8.5
Status in Society	34	2	1.0	7	3.5	14	7.0
Other ("to help others")	9	3	1.4	--	--	--	--
TOTAL		207	100.0	201	100.0	199	100.0

was named as important. The sum of ranks was computed by giving the value of 3 to "most important" responses, a value of 2 to "second most important" responses, and a value of 1 to "third most important" responses and cumulatively multiplying those values by the N of each respective response for each option. To distinguish between the seven options of job attributes and the three responses indicating the students' judgments of relative importance of those attributes, the wording of the options will be underscored and the wording of the responses of relative importance will be enclosed in quotation marks.

Salary had the highest sum of ranks value of 306 and accounted for the second-largest percent of the "most important" responses with 32.4 percent; the largest percent of the "second most important" responses with 29.9 percent; and the largest percent of the "third most important" responses with 28.7 percent.

Challenge and excitement had the second-largest sum of ranks value of 291 and the largest percent, 32.4 percent, of the "most important" responses. This attribute also accounted for 13.9 percent of the "second most important" responses and 17.1 percent of the "third most important" responses.

The attribute of working conditions ranked third with a sum of ranks value of 266 and had the second-largest percent of responses of both "second most important" with 26.4 percent, and of the "third most important" with 21.6 percent.

Job security ranked fourth with a sum of ranks value of 165. It had a range of percents across the three rankings of importance from 11.1 percent in the "most important" response to 17.1 percent in the "third most important" responses.

Ranking fifth with a sum of ranks value of 151, close to the fourth-ranked attribute, was desired type of activity. It accounted for 14.5 percent of the "most important" responses, 10.9 percent of the "second most important" responses, and 8.5 percent of the "third most important" responses.

Status in society ranked last of the attributes, with the exception of the other category, and had a range of percents from 1.0 percent of the "most important" responses to 7.0 percent of the "third most important" responses.

The attributes added in the category of other came from three students who, in various words, indicated that to help others was the "most important" attribute of the occupation they had chosen for themselves.

Desirable Occupational Attributes By Sex of Student: Analyses by cross-tabulations were made of these data with the variables of curriculum, type of class, and sex. The cross-tabulation of these data with the variable sex provided the most meaningful data and from which other relationships could be inferred because of the all-male enrollment in Industrial, all-female enrollment in Office, and nearly all-female enrollment in HERO. Table 24 shows that cross-tabulation.

The proportion of males and females who responded to these options was, on the average, 21 percent males and 79 percent females. The attribute of salary had a fairly even distribution across the three importance rankings by males from 29.7 percent of the "most important" responses to 35.1 percent in each of the "second most" and "third most important" responses. Female students ranked salary more often as "second most important" with 38.2 percent and " third most important" with 35.8 percent and the remaining 29.7 percent ranked it as "most important."

Challenge and excitement had fewer total responses than did salary but the students who selected this attribute ranked it very high. Slightly less than half of the males, 46.2 percent, and slightly more than half of the females, 53.4 percent, indicated that this attribute was the "most important" one to them in their occupational choice. The remaining percent of males were divided equally between the "second most important" and the "third most important" rankings. The remaining percent of females were divided as follows: 20.4 percent indicated it was "second most important" and 26.2 percent indicated it was "third most important."

Working conditions had a fairly even distribution of percents of both the male and the female students with slightly larger percents, 37.9 percent of the males and 39.6 percent of the females, who ranked it as "second most important."

Job security was important to the students but the largest percent groups of males, 41.7 percent, and of females, 37.5 percent, ranked it as "third most important." Additionally, 29.2 percent of the males and 37.5 percent of

TABLE 24. RELATIVE IMPORTANCE OF ATTRIBUTES OF OCCUPATIONS NAMED AS STUDENTS' OCCUPATIONAL CHOICES BY SEX

	Order and Sum of Ranks				TOTAL				RELATIVE IMPORTANCE OF ATTRIBUTE											
									Most Important				Second Most Important				Third Most Important			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	a	b	a	b	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ATTRIBUTE:																				
Salary	1	72	1	234	37	23.1	123	76.9	11	29.8	32	26.0	13	35.1	47	38.2	13	35.1	44	35.8
Challenge & Excitement	3	57	1	234	26	20.2	103	79.8	12	46.2	55	53.4	7	26.9	21	20.4	7	26.9	27	26.2
Working Conditions	2	60	3	206	29	21.5	106	78.5	10	34.5	29	27.4	11	37.9	42	39.6	8	27.6	35	33.0
Job Security	4	45	5	120	24	27.3	64	72.7	7	29.2	16	25.0	7	29.2	24	37.5	10	41.6	24	37.5
Desired Type of Activity	5	26	4	125	12	17.4	57	82.6	5	41.7	25	43.8	4	33.3	18	31.6	3	25.0	14	24.6
Status in Society	6	8	6	26	5	21.7	18	78.3	1	20.0	1	5.6	1	20.0	6	33.3	3	60.0	11	61.1
Other ("to help others")	-	--	7	9	--	--	3	100.0	--	--	3	100.0	--	--	--	--	--	--	--	--

a Order of Ranks

b Sum of Ranks

the females ranked it "second most important," and smaller proportions, 29.2 percent of the males and 25.0 percent of the females, ranked it as "most important."

Like job security, the students who selected status in society ranked it primarily "third" or "second most important." The numbers of students selecting this attribute were so small that percents were not meaningful. Proportionately, 3 of the 5 male students and 11 of the 18 female students ranked it as "third most important."

Desired type of activity was ranked by proportionately fewer students but those who did rank it placed a high value on it. The percents of students who selected it as "most important" were 41.7 percent of the males and 43.9 percent of the females. The next largest groups ranked it as "second most important with 33.3 percent of the males and 31.6 percent of the females ranking it so. The remaining percents, 25.0 percent of the males and 24.6 percent of the females, ranked it as "third most important."

The other attribute, that of helping others, accounted for only three female students, all of whom ranked it as "most important."

Attributes of Jobs in General Compared With Attributes of Students' Occupational Choices: The data from a similar question reported earlier in this section in Table 14 provided the opportunity for some limited comparisons between the relative value which students placed upon certain attributes of jobs in general and upon the most important attribute of their specific occupational choice. The data reported in Table 14 were responses to the question asking students to select "the single most important thing (they thought) a job should offer (them)" which might be compared to the responses of the attribute they considered most important in their occupational choice detailed in Table 23. In this latter analysis of choice occupation attributes, challenge and excitement, having the largest percent in the "most important" rank with 32.4 percent of the responses, might be equated with job that is interesting and exciting, having 21.3 percent of the responses, and possibly with having responsibility, with 5.5 percent of the responses in the former analysis.

Very different numbers of students responded to these two questions; 344 to the question of attributes of jobs in general reported in Table 14 and

207 to the question of attributes of their occupational choice reported in Table 23. However, it was believed that the values placed by students on these similar components of a job are comparable by the use of percents of total responses to each.

The attribute of the choice occupation selected by the second-largest percent group in Table 23 was salary with 20.8 percent of the responses. That compared with the option of money in the previous analysis presented in Table 14 which was selected by only 7.8 percent of the respondents. If the assumption can be made that this comparison is meaningful, it appeared that students did take into more serious consideration the matter of salary in their own occupational choice but, in considering "jobs in general," they felt it was of lesser importance.

These students also attached more importance to working conditions in their occupational choice with 18.8 percent of the "most important" responses to this option, than they felt was important in "jobs in general" from the previous question to which 5.5 percent responded to pleasant working conditions and another 4.4 percent responded to having nice people to work with, making a total of 9.9 percent.

Additional comparisons between the two sets of data were less meaningful since the wording of the options in each question was less similar than the comparisons previously described.

Summary: The single attribute of a job which students selected more often as the most important to them in their occupational choice was challenge and excitement. However, when responses of "second" and "third most important" attribute of their occupational choice are included and a weighted value is computed on these attributes, salary becomes the most important attribute followed closely by challenge and excitement and, third, working conditions.

When these responses by male students are compared with those by female students, the rankings differ slightly. Male students rank them, in order, as salary, working conditions, and challenge and excitement. Female students, as a group, equally rank salary with challenge and excitement, followed by working conditions.

The comparison of students' responses relative to attributes of their chosen occupation with those of jobs in general revealed that the values placed on attributes of their occupational choices tended to be more extrinsic than the values placed on desired attributes of jobs in general.

Students' "Dream Jobs"

Students were asked to name their "dream jobs," that job which they would like to do if they were sure they would be able to do the work well. There were 307 responses to this question, 83.9 percent of the total sample, and those responses were coded and are presented on the Roe matrix in Table 25.

The occupational group of Organization had the largest percent of responses which was consistent with the distribution of percents across occupational groups in the matrices of considered occupations, Tables 15, 16, and 17, and the students' occupational choice, Table 19.

The differences in percents across the occupational groups between the choice occupations, Table 19, and the "dream jobs," Table 25, followed the same pattern of differences identified in similar comparisons of percents between the choice occupation and the third-listed considered occupation. As previously described, the differences in percents across groups between the first-listed considered occupation and the choice occupation were small. Therefore, the choice occupation was identified as the base from which to compare the third-listed considered occupation and, for this analysis, the "dream job."

The consistent pattern of percent differences between the occupational choice matrix and the "dream job" matrix showed a much lower percent of responses in Organization and somewhat lower percents in Technology and Business Contacts. Business Contacts was 0.1 percent higher in the "dream job" matrix, along with much higher percents in Arts and Entertainment and somewhat higher percents in the adjacent groups of General Cultural and Service and in the next adjacent groups to them of Science and Outdoor. The pattern of differences between choice and "dream job" was more exaggerated in the groups of Technology, with smaller percents, and Outdoor and Arts and Entertainment, with larger percents.

More specifically, the Organization group had 16.3 percent fewer responses between choice and third-listed considered occupations and 14.4 percent fewer

TABLE 25. STUDENTS' "DREAM JOBS"

OCCUP. LEVEL	OCCUPATIONAL GROUP								TOTAL
	1 Service	2 Business Contact	3 Organi-zation	4 Tech-nology	5 Outdoor	6 Science	7 General Cultural	8 Arts/Enter-tainment	
6 Prof./ Mgr. 1	4 1.3%		6 2.0%			12 3.9%	9 2.9%	11 3.6%	42 13.7%
5 Prof./ Mgr. 2	13 4.2%	3 1.0%	6 2.0%	3 1.0%	2 0.7%	13 4.2%	11 3.6%	7 2.3%	58 18.9%
4 Semi-Prof./ Sm. Bus.	6 2.0%		74 24.1%	9 2.9%	6 2.0%	5 1.6%	2 0.7%	10 3.3%	112 36.5%
3 Skilled	24 7.8%		9 2.9%	13 4.2%	5 1.6%	1 0.3%		15 4.9%	67 21.8%
2 Semi-skilled	17 5.5%		10 3.3%	1 0.3%					28 9.1%
1 Un-skilled									--
TOTAL	64 20.8%	3 1.0%	105 34.2%	26 8.5%	13 4.2%	31 10.1%	22 7.2%	43 14.0%	307 100%

responses between choice and "dream job." However, a greater change took place in Technology which had 2.5 percent fewer responses between choice and third-listed considered occupation and 6.8 percent fewer responses between choice and "dream job."

The groups of Arts and Entertainment and Outdoor had the greatest difference in percents in these comparisons. Arts and Entertainment had 4.3 percent more responses between choice and third-listed considered occupation but 9.4 percent more responses between choice and "dream job." Outdoor had similar differences in the comparison described above of 1.8 percent and 3.7 percent respectively. General Cultural, on the other hand, had 7.5 percent more responses between choice and third-listed considered occupation but only 2.6 percent more responses between choice and "dream job."

These patterns of differences in percents across occupational groups indicated that, on the whole, the students' first-listed considered occupations were very similar to their occupational choices and, as they added a second- and third-listed considered occupation and, finally a "dream job," these additional occupational preferences represented consistently more idealistic or less realistic occupational choices. The occupations which they indicated in these additional preferences to which they were giving consideration are the higher-level positions in occupational groups where there are fewer workers, artists, or performers.

STUDENTS' OCCUPATIONAL CHOICES COMPARED WITH PARENTS' OCCUPATIONS

One of the major research questions which prompted this study was to determine the similarity or discrepancy between a student's choice of an occupation and his father's and/or mother's occupation. The adoption of the Roe Occupational Classification scheme for coding occupations provided a basis whereby the relative similarity or discrepancy of both occupational group and level could be measured.

Comparison of Male Student's Occupational Choice With Father's Occupation

Cross-tabulations were made of each male student's choice of occupational group and level with that of his father's occupation. Results are shown in

Tables 26A and 26B. Each student in this cross-tabulation had to have indicated an occupational choice for himself and an occupation for his father.

Group Comparison: Of the 51 male students who had made an occupational choice, 39 or 76.5 percent had also indicated an occupation for their fathers. Of those 39 students, 17 or 43.6 percent of this group had chosen the occupational group in which their father was employed and 16 of those 17 occupations were in the Technology group. Those matches are denoted by the letter "a" on the tables. Technology accounted for 64.0 percent of the occupations named by students as their occupational choices and 69.2 percent of those named as fathers' occupations. As described previously, this occupational group includes a wide variety of industrial occupations, no one of which received the majority of mentions by the students. Analysis was not made to determine how many of these 17 matches of occupational group between son and father were also matches of specific occupations.

The letter "b" on Table 26A denotes the 16 cases or 41.0 percent where the choice of occupational group by the son was two or more groups discrepant from his father's occupational group. The remaining 6 male students, 15.4 percent, had selected an occupational group adjacent to that of their father's occupational group.

The remaining cells in this cross-tabulation of occupational group have so few cases that no further meaningful analysis could be made but it was possible to trace and compare the occupational groups of these 39 sons and their fathers. It was possible, for example, to determine which occupational groups were chosen by the sons of the five fathers employed in Service occupations by reviewing the distribution across the row labeled "Service" under Father's Occupational Group. That row shows the distribution of students' choices across occupational groups and, in this instance, all five of those sons selected Technology occupations. Conversely, it was possible to determine the occupational group of the fathers for the four sons who chose Service occupations for themselves by a review of the column headed "Service" under Male Student's Choice of Occupational Group. In this instance, one father was employed in an Organization occupation and three fathers were employed in Technology occupations.

TABLE 26A. MALE STUDENT'S CHOICE OF OCCUPATIONAL GROUP COMPARED WITH FATHER'S OCCUPATIONAL GROUP

FATHER'S OCCUPATIONAL GROUP	TOTAL		MALE STUDENT'S CHOICE OF OCCUPATIONAL GROUP											
			Service		Organization		Technology		Science		Gen. Cult.		Arts/Entertmt	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Service	5	12.8	-	--	-	--	[b]5	20.0	-	--	-	--	-	--
Business Contact	1	2.6	-	--	-	--	-	--	-	--	[b]1	50.0	-	--
Organization	4	10.2	[b]1	25.0	[a]1	25.0	2	8.0	-	--	-	--	-	--
Technology	27	69.2	[b]3	75.0	3	75.0	[a]16	64.0	[b]1	100.0	[b]1	50.0	[b]3	100.0
Outdoor	1	2.6	-	--	-	--	1	4.0	-	--	-	--	-	--
General Cultural	1	2.6	-	--	-	--	[b]1	4.0	-	--	-	--	-	--
TOTAL	39	100.0	4	100.0	4	100.0	25	100.0	1	100.0	2	100.0	3	100.0

TABLE 26B. MALE STUDENT'S CHOICE OF OCCUPATIONAL LEVEL COMPARED WITH FATHER'S OCCUPATIONAL LEVEL

FATHER'S OCCUPATIONAL LEVEL	TOTAL		MALE STUDENT'S CHOICE OF OCCUPATIONAL LEVEL							
			Semiskilled		Skilled		Semiprof.		Prof./Mgr.	
	N	%	N	%	N	%	N	%	N	%
Unskilled	2	5.1	-	--	[d]2	9.1	-	--	-	--
Semiskilled	9	23.1	-	--	5	22.7	[d]2	20.0	[d]2	40.0
Skilled	16	41.0	[c]1	50.0	[a]8	36.4	5	50.0	[d]2	40.0
Semiprofessional	12	30.8	[c]1	50.0	[c]7	31.8	[a]3	30.0	1	20.0
TOTAL	39	100.0	2	100.0	22	100.0	10	100.0	5	100.0

[a] Denotes matches of occup. group or level of male student's occup. choice with his father's occup.

[b] Denotes male student's choice of occup. group two or more groups discrepant from his father's occup. group.

[c] Denotes male student's choice of occup. level one or more levels below his father's occup. level.

[d] Denotes male student's choice of occup. level two or more levels above his father's occup. level.

Level Comparison: The cross-tabulation of the level of the student's occupational choice by the father's occupation, Table 26B, revealed that the fathers of those students reported in this analysis were employed at the Unskilled level through the Semiprofessional level and that the students' choices of occupational level ranged from Semiskilled through Professional 2.

Eleven level matches, or 28.2 percent of the 39 possible father-son combinations, were identified and are denoted by the letter "a." Eight of those matches were at the Skilled level and three were at the Semiprofessional level. The Skilled level accounted for 36.4 percent of the occupations named as students' choices and 41.0 percent of those named as the fathers' occupational levels. The three cells denoted by the letter "c" containing 9 cases identify the students who chose an occupation at a level below that of their father's occupational level. There were 8 students, denoted by the letter "d," who chose an occupation at two or more levels above that of their father's occupation.

It should be noted that the 11 students who had the matches of occupational level between their occupational choices and their fathers' occupations may or may not be some of the 17 students who had the matches of occupational group between son and father. The two dimensions of the Roe matrix, group and level, have been handled separately in this analysis.

Comparison of Female Students' Choices With Mothers' Occupations

Tables 27A and 27B show the cross-tabulations of occupational group and level of each female student's occupational choice with that of her mother. As in the previous analyses of male students' occupational choices with those of their fathers, the students included in this analysis had to have indicated both an occupational choice for herself and an occupation for her mother. Of the 164 female students who had indicated an occupational choice, 84 or 51.2 percent also indicated an occupation for their mothers. All occupational groups except Outdoor are represented in this analysis.

Group Comparison: There were 27 matches, 32.1 percent of the 84 possible mother-daughter combinations, 25 in the Organization group and the remaining 2 in the Service group. The Organization group accounted for 63.1 percent of the students' occupational choices and 47.6 percent of the mothers' occupations. The 53 students who had selected Organization occupations had mothers employed

TABLE 27A. FEMALE STUDENT'S CHOICE OF OCCUPATIONAL GROUP COMPARED WITH MOTHER'S OCCUPATIONAL GROUP

	TOTAL		FEMALE STUDENT'S CHOICE OF OCCUPATIONAL GROUP													
			Service		Business Contact		Organi-zation		Technology		Science		General Cultural		Arts/Enter-tainment	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MOTHER'S OCCUPATIONAL GROUP:																
Service	21	25.0	[a]2	13.3	-	--	[b]13	24.5	[b]1	50.0	[b]4	66.7	[b]1	25.0	-	--
Business Contact	1	1.2	1	6.7	-	--	-	--	-	--	-	--	-	--	-	--
Organi-zation	40	47.6	[b]7	46.6	2	100.0	[a]25	47.2	1	50.0	[b]2	33.3	[b]2	50.0	[b]1	50.0
Technology	12	14.3	[b]3	20.0	-	--	7	13.2	-	--	-	--	[b]1	25.0	[b]1	50.0
Science	5	6.0	[b]1	6.7	-	--	[b]4	7.5	-	--	-	--	-	--	-	--
General Cultural	4	4.7	[b]1	6.7	-	--	[b]3	5.7	-	--	-	--	-	--	-	--
Arts/Enter-tainment	1	1.2	-	--	-	--	[b]1	1.9	-	--	-	--	-	--	-	--
TOTAL	84	100.0	15	100.0	2	100.0	53	100.0	2	100.0	6	100.0	4	100.0	2	100.0

[a] Denotes matches of occupational group of female student's occupational choice with her mother's occupation.

[b] Denotes female student's choice of occupational group two or more groups discrepant from her mother's occupational group.

TABLE 27B. FEMALE STUDENT'S CHOICE OF OCCUPATIONAL LEVEL COMPARED WITH MOTHER'S OCCUPATIONAL LEVEL

	TOTAL		FEMALE STUDENT'S CHOICE OF OCCUPATIONAL LEVEL									
			Semiskilled		Skilled		Semiprof./ Sm. Bus.		Prof./Mgr. 2		Prof./Mgr. 1	
	N	%	N	%	N	%	N	%	N	%	N	%
MOTHER'S OCCUPATIONAL LEVEL:												
Unskilled	8	9.5	2	18.2	[d]1	7.7	[d]2	5.0	[d]3	17.6	-	--
Semiskilled	25	29.8	[a]2	18.2	7	53.8	[d]10	25.0	[d]5	29.4	[d]1	33.3
Skilled	26	31.0	[c]3	27.2	[a]2	15.4	15	37.5	[d]5	29.4	[d]1	33.3
Semiprofessional/ Small Business	18	21.4	[c]2	18.2	[c]3	23.1	[a]10	25.0	2	11.8	[d]1	33.4
Professional & Managerial 2	7	8.3	[c]2	18.2	-	--	[c]3	7.5	[a]2	11.8	-	--
TOTAL	84	100.0	11	100.0	13	100.0	40	100.0	17	100.0	3	100.0

[a] Denotes matches of occupational level of female student's occupational choice with her mother's occupation.

[c] Denotes female student's choice of occupational level one or more levels below her mother's occupational level.

[d] Denotes female student's choice of occupational level two or more levels above her mother's occupational level.

in six of the seven groups represented. Aside from the 25 students whose choice of occupational group was Organization which matched the occupational group of their mothers, 13 students had mothers who were employed in Service occupations, 7 in Technology occupations, 4 in Science occupations, 3 in General Cultural occupations, and 1 in an Arts and Entertainment occupation.

Conversely, the 40 mothers employed in Organization occupations had daughters whose occupational choices were distributed across all the groups represented in the analysis which included all in the Roe matrix except Outdoor. Again, in addition to the 25 mothers whose daughters chose Organization occupations, 7 had daughters who chose Service occupations, 2 chose Business Contacts occupations, 1 chose a Technology occupation, 2 chose Science occupations, 2 chose General Cultural occupations, and 1 chose an Arts and Entertainment occupation.

To demonstrate the group discrepancy between female students' occupational choices and their mothers' occupations, there were 46 students or 54.8 percent, denoted by the letter "b," who had selected occupations in groups which were two or more groups discrepant from their mothers' occupational groups. Eleven students selected an occupational group adjacent to that of their mother's occupational group.

Level Comparison: Table 27B provides the detail of the cross-tabulation by level of the female students' occupational choices and their mothers' occupations. There were 16 matches of level, denoted by the letter "a," of the 84 possible mother-daughter combinations which was equal to 19.0 percent of the cases in this analysis. Those 16 matches were distributed over 4 levels: 2 at the Semiskilled level, 2 at the Skilled level, 10 at the Semiprofessional level, and 2 at the Professional 2 level. There were 13 students, denoted by the letter "c," who chose occupations at a level below that of their mothers' occupational levels and 29 students, denoted by the letter "d," who chose an occupation two or more levels above that of their mothers' occupations.

All except 3 of the 25 cells in this cross-tabulation have one or more cases which indicated a diverse distribution. As the table shows, the mothers employed at any level have daughers who selected occupations at one of almost

all the levels and, conversely, the daughters who selected occupations at any level have mothers employed at one of almost all the levels.

Analysis was not made to determine how many, if any, of the 16 matches of occupational level were the same students who accounted for some of the 27 matches of occupational group or how many, if any, of the matches of group or level were matches of specific occupations.

OCCUPATIONAL GROUP AND LEVEL DISCREPANCY SCORES

Two kinds of discrepancy scores were computed between three selected pairs of occupations named by the students. One kind of discrepancy score was the difference between occupational groups and the other the difference between occupational levels of the paired occupations. This was possible because all student responses of occupations were coded by the Roe scheme using two digits, the first to identify the one of eight occupational groups and the second to identify the one of six occupational levels into which each occupation was classified.

The Roe matrix, as described in Chapter 2 of this report, is, theoretically, cylindrical with groups arranged around the circumference and levels arranged vertically. This arrangement reflects the closer relationship between contiguous cells, group and level, and the lesser relationship between noncontiguous cells. Group 1 is situated between Groups 8 and 2.

Computation of Discrepancy Scores

The design of the computation of group discrepancy scores took into consideration the circular arrangement of the groups. The greatest score possible of group discrepancy was 4 showing, for example, the discrepancy between Groups 1 and 5. Had the two compared Groups been 1 and 6, the discrepancy score would have been 3 since Group 6 is three groups removed from Group 1, namely Groups 7, 8, and the third step to Group 1 itself. Therefore, the maximum group discrepancy score was 4 and the minimum score was 0 which indicated that no discrepancy existed between the two compared occupations, that they were in the same group.

The levels are arranged in hierarchial order making the computation of the level discrepancy scores a matter of computing the numeric difference between the numbered levels. The maximum level discrepancy score was 5 and the minimum score was 0. However, the highest discrepancy score of level obtained in this study was 4.

A discrepancy score of 0 for either group or level indicated that the two occupations being compared were in the same group or at the same level. A discrepancy score of 1 indicated the two occupations were in adjacent groups or levels and were, therefore, closely associated. As the discrepancy score increased to the maximum value of 4 for either group or level, the two compared occupations became less associated or more discrepant.

In and of themselves, discrepancy scores should not be interpreted as "good" or "bad." At best, when data are known of other variables pertaining to a given student with low discrepancy scores for example, between two occupations he is considering for himself, it may be said of that student that he has demonstrated some consistency in his occupational preferences. However, a student with comparatively high discrepancy scores may be described as holding open more broad occupational options for himself. In the reporting of the analyses of discrepancy scores, some interpretation will be offered where it appeared helpful to do so for clarification of the analyses results.

Self, Father, and Mother Discrepancy Scores Defined

There were three pairs of occupations whose comparisons were of interest in this study. The first was between the student's first-listed and second-listed considered occupations and, for brevity and clarity, will be referred to as "self" discrepancy scores; "self group discrepancy" score and "self level discrepancy" score. This comparison showed the similarity or difference between the two occupations which the student was giving most serious consideration to entering.

The second set of group and level discrepancy scores was computed between the student's occupational choice and his or her father's occupation. Hereafter, these scores will be referred to as "father group discrepancy" and "father level discrepancy." This showed the similarity or difference

between these occupations and from which might be inferred the degree, if any, of the father's influence on the occupational choice of his son or daughter, primarily his son.

The third set of discrepancy scores was computed between the student's occupational choice and his or her mother's occupation. Hereafter, these scores will be referred to as "mother group discrepancy" and "mother level discrepancy" and, like the comparison with the father's occupation, this comparison might indicate the influence the mother had on the occupational choice of her son or daughter, primarily her daughter.

The computation of these six discrepancy scores was accomplished by a computerized program which also added these new variable values to the data cards for each individual student thus making the data accessible for further analysis.

Self Discrepancy Scores

Table 28 shows the number and percent distribution of the self group and level discrepancy scores computed between the student's first-listed and second-listed considered occupations for the 218 students in this subsample who indicated two considered occupations.

Self Group Discrepancy Scores: Overall, nearly half of the students, 44.0 percent, had a discrepancy score of 0, which indicated they had selected both considered occupations which were classified in the same occupational group, and 9.7 percent had a discrepancy score of 1, which indicated they had selected occupations in adjacent, closely related groups. Students with a discrepancy score of 2 represented 21.2 percent of the subsample. Discrepancy scores of 3 and 4, indicating much and maximum discrepancy, had 15.4 percent and 9.7 percent respectively of the subsample.

The cross-tabulation by curriculum revealed differences between curricula in their precent distributions from the overall distribution. More than half of the Industrial students, 56.0 percent, had no discrepancy by naming occupations in the same group and an additional 20.0 percent named occupations in adjacent groups.

HERO students represented the next highest percent, 44.6 percent, of the four curricula with a discrepancy score of 0 and an additional 9.2 percent

TABLE 28. DISCREPANCY SCORES OF OCCUPATIONAL GROUP AND LEVEL BETWEEN STUDENT'S FIRST-LISTED AND SECOND-LISTED CONSIDERED OCCUPATIONS BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		OCCUPATIONAL GROUP DISCREPANCY SCORES									
			0		1		2		3		4	
	N	%	N	%	N	%	N	%	N	%	N	%
CURRICULUM:												
Dist.	52	16.4	19	36.5	9	17.3	11	21.2	8	15.4	5	9.6
HERO	65	20.4	29	44.6	6	9.2	17	26.2	10	15.4	3	4.6
Office	151	47.5	64	42.4	6	4.0	36	23.8	28	18.5	17	11.3
Indus.	50	15.7	28	56.0	10	20.0	3	6.0	3	6.0	6	12.0
TOTAL	318	100.0	140	(44.0)	31	(9.7)	67	(21.2)	49	(15.4)	31	(9.7)
TYPE OF CLASS:												
Coop Sr. Level	168	52.9	77	45.8	20	11.9	31	18.5	25	14.9	15	8.9
Not Coop Jr./Sr.	126	39.6	49	38.9	9	7.1	32	25.4	20	15.9	16	12.7
Related	24	7.5	14	58.3	2	8.3	4	16.7	4	16.7	-	--
TOTAL	318	100.0	140	(44.0)	31	(9.7)	67	(21.2)	49	(15.4)	31	(9.7)
SEX:												
Male	74	23.3	35	47.3	14	18.9	8	10.8	7	9.5	10	13.5
Female	244	76.7	105	43.0	17	7.0	59	24.2	42	17.2	21	8.6
TOTAL	318	100.0	140	(44.0)	31	(9.7)	67	(21.2)	49	(15.4)	31	(9.7)
			OCCUPATIONAL LEVEL DISCREPANCY SCORES									
CURRICULUM:												
Dist.	52	16.4	16	30.8	20	38.5	9	17.3	5	9.6	2	3.8
HERO	65	20.4	15	23.1	27	41.5	15	23.1	7	10.8	1	1.5
Office	151	47.5	47	31.1	71	47.0	30	19.9	3	2.0	-	--
Indus.	50	15.7	21	42.0	25	50.0	3	6.0	1	2.0	-	--
TOTAL	318	100.0	99	(31.1)	143	(45.0)	57	(17.9)	16	(5.0)	3	(1.0)
TYPE OF CLASS:												
Coop Sr. Level	168	52.9	57	33.8	71	42.3	28	16.7	10	6.0	2	1.2
Not Coop Jr./Sr.	126	39.6	38	30.2	58	46.0	27	21.4	3	2.4	-	--
Related	24	7.5	4	16.7	14	58.3	2	8.3	3	12.5	1	4.2
TOTAL	318	100.0	99	(31.1)	143	(45.0)	57	(17.9)	16	(5.0)	3	(1.0)
SEX:												
Male	74	23.3	29	39.2	34	45.9	9	12.2	2	2.7	-	--
Female	244	76.7	70	28.7	109	44.7	48	19.7	14	5.7	3	1.2
TOTAL	318	100.0	99	(31.1)	143	(45.0)	57	(17.9)	16	(5.0)	3	(1.0)

with a discrepancy score of 1. The remaining students were distributed across scores of 2, 3, and 4 with 26.2 percent, 15.4 percent, and 4.6 percent respectively.

Distributive students had the smallest percent, 36.5 percent, with a discrepancy score of 0 and there were 17.3 percent of those in this curriculum with a score of 1. The remaining percents were distributed across the scores of 2, 3, and 4 in almost identical proportion to the subsample as a whole; 21.2 percent with a score of 2, 15.4 percent with a score of 3, and 9.6 percent with a score of 4.

Office students on the whole reflected more occupational group discrepancy in their considered occupations than students in other curricula. Of the 151 Office students in this subsample, 42.4 percent had a score of 0 and 4.0 percent had a score of 1, which represented the smallest percent of any curriculum which had a score of 1. However, in the distribution across the remaining scores, Office students represented proportionately larger groups than the distribution as a whole and had the largest percent with scores of 3 and 4 and the second-largest percent with a score of 2. There were 23.8 percent with a score of 2, 18.5 percent with a score of 3, and 11.3 percent with a score of 4.

The distribution by type of class across the occupational group discrepancy scores differed from the distribution as a whole. The senior level, not cooperative, students reflected more discrepancy between their considered occupations than students in other types of classes. This group of students had the smallest percents with scores of 0 and 1, 38.9 percent and 7.1 percent respectively; the highest percent with scores of 2 and 4, 25.4 percent and 12.7 percent respectively; and next to the highest percent with the score of 3, 15.9 percent.

The number of students in this subsample who were enrolled in junior/senior related classes had the least discrepant scores of the three types of classes. Fourteen of the 24 students or 58.3 percent had the score of 0 and 2 or 8.3 percent had the score of 1. The remaining 4 students, 33.4 percent, were equally divided between scores of 2 and 3. There were no junior/senior related students with a score of 4.

The cooperative students had slightly less discrepant scores than the subsample as a whole. Their percent distribution was slightly higher than the subsample as a whole for scores of 0 and 1, 45.8 percent and 11.9 percent respectively; and slightly lower for scores of 2, 3, and 4, 18.5 percent, 14.9 percent, and 8.9 percent respectively.

The cross-tabulation by sex showed that proportionately more males than females had the less-discrepant scores of 0 and 1, 47.3 percent and 18.0 percent respectively for males and 43.0 percent and 7.0 percent for females. However, proportionately more males than females, 13.5 percent compared to 8.6 percent, had scores of 4. Females had percents which were about twice that of males for a score of 2, 24.2 percent compared with 10.8 percent, and for a score of 3, 17.2 percent compared with 9.5 percent.

Self Level Discrepancy Scores: Analysis of the second type of discrepancy score, that of occupational level, showed that 76.1 percent of the students had mentioned occupations which they were considering at either the same level or at an adjacent level. The second part of Table 28 shows that students with a level discrepancy score of 0 represented 31.1 percent and those with a score of 1 represented 45.0 percent of the subsample. The percents across the other level discrepancy scores progressively became smaller with 17.9 percent with a score of 2, 5.0 percent with a score of 3, and 3 students or 1.0 percent with a score of 4.

There were very different percent distributions by curriculum from the distribution as a whole although those differences were not statistically significant in a Chi-square analysis. As in the group discrepancy scores, Industrial students had the largest percent of those with a score of 0 with 42.0 percent and the largest percent of those with a score of 1 with 50.0 percent making a total of 92.0 percent of the Industrial students who selected occupations at the same or adjacent levels. The remaining 8.0 percent, representing 4 students, were distributed 6.0 percent with a score of 2 and 2.0 percent with a score of 3.

The Office students had the next largest percents with both 0 and 1 scores with 31.1 percent with a score of 0 and 47.0 percent with a score of 1; and had the largest percent, 19.9 percent, with a score of 2. The remaining 2.0 percent, representing 3 students, had a score of 3.

Distributive students had a distribution similar to the overall distribution with 30.8 percent with a score of 0 and 38.5 percent with a score of 1. The next three categories of scores had decreasing percents of 17.3 percent with 2, 9.6 percent with 3, and 3.8 percent or 2 students with the score of 4.

HERO students had the smallest proportion of all curricula of the less-discrepant level scores and were more evenly distributed than other curricula across the level discrepancy score categories with 23.1 percent with a score of 0, 41.5 percent with a score of 1, 23.1 percent with a score of 2, 10.8 percent with a score of 3, and 1.5 percent or 1 student with a score of 4.

The cross-tabulations by type of class revealed that the cooperative and senior level, not cooperative, students had similar percent distributions but the junior/senior related students had a different distribution. There were 33.9 percent of the cooperative and 30.2 percent of the senior level, not cooperative students with a score of 0. The junior/senior related students with the score of 0 were 16.7 percent of the students in that type of class. That difference was reversed with the percents having the score of 1; the cooperative and senior level, not cooperative, had 42.3 percent and 46.0 percent respectively with the score of 1 and the junior/senior related students had a 58.3 percent clustering with a score of 1.

In the more discrepant categories of scores of 2, 3, and 4, cooperative and senior level, not cooperative, students had a declining percent distribution. The cooperative students were distributed 16.7 percent, 6.0 percent, and 1.2 percent respectively and the senior level, not cooperative students were distributed 21.4 percent and 2.4 percent with scores of 2 and 3 respectively and no students with the score of 4. The distribution for junior/senior related students across the remaining scores varied but the number of students represented in those percents was quite small. Two students or 8.3 percent had a score of 2, 3 students or 12.5 percent had a score of 3, and 1 student or 4.2 percent had the score of 4.

A cross-tabulation by sex showed the males again had the higher percents of the less-discrepant scores; 39.2 percent with the score of 0 and 45.9 percent with the score of 1 for a total of 85.1 percent. Females had 28.7 percent with the score of 0 and 44.7 percent with the score of 1 for a

total of 73.4 percent. Nine male students or 12.2 percent had the score of 2 and 2 students or 2.7 percent had the score of 3. The three students with the level discrepancy score of 4 were females representing 1.2 percent of the females. The remaining female students were distributed with 19.7 percent with the score of 2 and 5.7 percent with the score of 3.

Summary and Discussion of Self Discrepancy Scores: The percents of students who had computed self discrepancy scores of 1 to 4 in either group or level gave a better indication of the differences in a student's occupational preferences than the previously reported analysis based only on the differences in percents by occupational groups and levels between the matrices of first-listed and second-listed considered occupations. In the previous analysis of occupational group between first- and second-listed considered occupations, it appeared that only 11.5 percent of the students had selected occupations in two different groups. That 11.5 percent was the total net differences in percents which revealed that three groups (Science, General Cultural, and Arts and Entertainment) had higher percents totally 11.5 percent counterbalanced by the remaining five groups which had lower percents totally 11.5 percent. However, the analysis by computed self group discrepancy scores revealed that, in fact, 56.0 percent of the students indicated preferences for occupations in two different occupational groups.

The same comparison made with level discrepancy scores revealed that net differences in percents between the first- and second-listed considered occupations made it appear that only 10.2 percent of the students indicated preferences for occupations at two different levels; that three levels (Semiskilled, Skilled, and Professional 2) had higher percents totally 10.2 percent and the remaining three levels had counterbalancing lower percents. However, the analysis by computed self level discrepancy scores revealed that 68.9 percent of the students had considered jobs at two different levels.

Father Discrepancy Scores

Group and level discrepancy scores were computed between the student's occupational choice, not his first- or second-listed considered occupation as in the previous computation, and his father's occupation. These two

father discrepancy scores are probably more meaningful in the comparison with male students than with female students. All data relative to these scores by curriculum, type of class, and sex are presented in Table 29; however, the discussion will be limited to the data presented in the cross-tabulation by sex.

Father Group Discrepancy Scores: Of the total subsample of 176 students who indicated both an occupational choice for themselves and an occupation for their fathers, 29.6 percent had a father group discrepancy score of 0 but the difference between the discrepancy scores of male and female students with their fathers was significant. A Chi-square analysis of this cross-tabulation by sex produced a value of 14.38 with 4 degrees of freedom which was significant at the .01 level and which indicated a significant association between father group discrepancy scores and sex of the student. The number of males and females in this subsample and in the study as a whole differ greatly with 22.2 percent males and 77.8 percent females in this subsample.

While 29.6 percent of the subsample had a group discrepancy score of 0, 43.6 percent of the males had that score compared to 25.5 percent of the females who had that score. A greater difference in percents appeared in the proportion of males and females with the score of 1; 15.4 percent of the males and 40.1 percent of the females had a score of 1. The scores of 0 and 1 reflect little or no discrepancy and 59.0 percent of the males and 65.6 percent of the females had those scores.

The remaining distribution of male students indicated that if a male student's choice of occupational group differed from his father's, it was more likely to differ 3 steps on the Roe scale than 1, 2, or 4 steps. Male students with a group discrepancy score of 3 represented 28.2 percent of their group and those with scores of 2 and 4 were 5.1 percent and 7.7 percent respectively. The female students were distributed across the three remaining scores, other than 0 or 1, with 13.9 percent each with scores of 2 and 3 and 6.6 percent with a score of 4.

Father Level Discrepancy Scores: The comparison of discrepancy scores of occupational level by sex of the student revealed that there was very little difference between the male students' scores and female students'

TABLE 29. DISCREPANCY SCORES OF OCCUPATIONAL GROUP AND LEVEL BETWEEN FATHER'S OCCUPATION AND STUDENT'S OCCUPATIONAL CHOICE BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		OCCUPATIONAL GROUP DISCREPANCY SCORES									
			0		1		2		3		4	
	N	%	N	%	N	%	N	%	N	%	N	%
CURRICULUM:												
Dist.	16	9.1	5	31.3	6	37.4	-	--	5	31.3	-	--
HERO	37	21.0	10	27.0	8	21.7	10	27.0	7	18.9	2	5.4
Office	92	52.3	23	25.0	42	45.6	10	10.9	10	10.9	7	7.6
Indus.	31	17.6	14	45.2	5	16.1	1	3.2	8	25.8	3	9.7
TOTAL	176	100.0	52	(29.6)	61	(34.7)	21	(11.9)	30	(17.0)	12	(6.8)
Chi-square = 29.54, 12 df, Sig. at .01 level												
TYPE OF CLASS:												
Coop Sr. Level	92	52.3	30	32.6	31	33.7	8	8.7	18	19.6	5	5.4
Not Coop Jr./Sr.	72	40.9	19	26.4	28	38.9	10	13.9	8	11.1	7	9.7
Related	12	6.8	3	25.0	2	16.7	3	25.0	4	33.3	-	--
TOTAL	176	100.0	52	(29.6)	61	(34.7)	21	(11.9)	30	(17.0)	12	(6.8)
SEX:												
Male	39	22.2	17	43.6	6	15.4	2	5.1	11	28.2	3	7.7
Female	137	77.8	35	25.5	55	40.1	19	13.9	19	13.9	9	6.6
TOTAL	176	100.0	52	(29.6)	61	(34.7)	21	(11.9)	30	(17.0)	12	(6.8)
Chi-square = 14.38, 4 df, Sig. at .01 level												
			OCCUPATIONAL LEVEL DISCREPANCY SCORES									
CURRICULUM:												
Dist.	16	9.1	6	37.5	8	50.0	2	12.5	-	--	-	--
HERO	37	21.0	11	29.8	15	40.5	10	27.0	1	2.7	-	--
Office	92	52.3	21	22.8	46	50.0	15	16.3	9	9.8	1	1.1
Indus.	31	17.6	7	22.6	15	48.4	7	22.6	2	6.4	-	--
TOTAL	176	100.0	45	(25.6)	84	(47.7)	34	(19.3)	12	(6.8)	1	(0.6)
TYPE OF CLASS:												
Coop. Sr. Level	92	52.3	26	28.3	45	48.9	16	17.4	4	4.3	1	1.1
Not Coop Jr./Sr.	72	40.9	15	20.8	36	50.0	15	20.8	6	8.4	-	--
Related	12	6.8	4	33.3	3	25.0	3	25.0	2	16.7	-	--
TOTAL	176	100.0	45	(25.6)	84	(47.7)	34	(19.3)	12	(6.8)	1	(0.6)
SEX:												
Male	39	22.2	11	28.2	19	48.8	7	17.9	2	5.1	-	--
Female	137	77.8	34	24.8	65	47.4	27	19.7	10	7.4	1	0.7
TOTAL	176	100.0	45	(25.6)	84	(47.7)	34	(19.3)	12	(6.8)	1	(0.6)

scores. The distribution as a whole showed 25.6 percent of the scores were 0, 28.2 percent of the males and 24.8 percent of the females had the score of 0. The other percents differed so little between male and female students that reporting the percent distribution of the subsample where the data were known is more meaningful. Nearly half, 47.7 percent, of the subsample had a score of 1 indicating their choice of an occupation at an adjacent level to the fathers' occupations. The remaining distribution was 19.3 percent with the score of 2, 6.8 percent with the score of 3, and only 1 student or 0.6 percent with a score of 4, that student being a female.

Summary and Discussion of Father Discrepancy Scores: If some degree of influence of the father's occupation can be inferred from these data, as was the purpose of analyzing the data, it would appear that his occupation had great influence on the choice of both occupational group and level of his son or daughter. Nearly half of the male students and one fourth of the female students chose an occupation in the same group as their fathers' and an additional 40.1 percent of the female students chose an occupation in an adjacent group to their fathers' occupations.

Whatever might be inferred about the influence of the father's occupations on the students' choices of occupational level was apparently the same for both the sons and daughters since their level discrepancy scores were in nearly identical proportions across the score categories. A review of the percent distributions across occupational level of the fathers' occupations in Table 5 and the occupational choices of the students in Table 19 indicated that the majority of the level discrepancy scores represented the students' choices of occupations at levels higher than their fathers' occupational levels.

Mother Discrepancy Scores

The mother group and level discrepancy scores were computed between the student's occupational choice and his or her mother's occupation. The subsample for this analysis included the 112 students who indicated an occupational choice for themselves and an occupation for their mother. As with the father discrepancy scores, the full data are presented in Table 30; however, the discussion will be limited to the cross-tabulation by sex and the percent distribution as a whole.

TABLE 30. DISCREPANCY SCORES OF OCCUPATIONAL GROUP AND LEVEL BETWEEN MOTHER'S OCCUPATION AND STUDENT'S OCCUPATIONAL CHOICE BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		OCCUPATIONAL GROUP DISCREPANCY SCORES									
			0		1		2		3		4	
	N	%	N	%	N	%	N	%	N	%	N	%
CURRICULUM:												
Dist.	11	9.8	2	18.2	4	36.3	2	18.2	-	--	3	27.3
HERO	21	18.8	6	28.6	3	14.3	4	19.0	6	28.6	2	9.5
Office	57	50.9	20	35.1	5	8.8	16	28.0	12	21.1	4	7.0
Indus.	23	20.5	5	21.7	5	21.8	7	30.4	5	21.7	1	4.4
TOTAL	112	100.0	33	(29.5)	17	(15.2)	29	(25.9)	23	(20.5)	10	(8.9)
TYPE OF CLASS:												
Coop Sr. Level	58	51.8	15	25.9	9	15.5	17	29.3	11	19.0	6	10.3
Not Coop Jr./Sr.	48	42.8	17	35.4	6	12.5	12	25.0	9	18.8	4	8.3
Related	6	5.4	1	16.7	2	33.3	-	--	3	50.0	-	--
TOTAL	112	100.0	33	(29.5)	17	(15.2)	29	(25.9)	23	(20.5)	10	(8.9)
SEX:												
Male	28	25.0	6	21.4	6	21.4	7	25.0	5	17.9	4	14.3
Female	84	75.0	27	32.2	11	13.1	22	26.2	18	21.4	6	7.1
TOTAL	112	100.0	33	(29.5)	17	(15.2)	29	(25.9)	23	(20.5)	10	(8.9)
			OCCUPATIONAL LEVEL DISCREPANCY SCORES									
CURRICULUM:												
Dist.	11	9.8	3	27.3	5	45.4	1	9.1	2	18.2	-	--
HERO	21	18.8	3	14.3	9	42.9	5	23.8	2	9.5	2	9.5
Office	57	50.9	11	19.3	23	40.4	13	22.8	8	14.0	2	3.5
Indus.	23	20.5	1	4.4	11	47.8	7	30.4	3	13.0	1	4.4
TOTAL	112	100.0	18	(16.1)	48	(42.8)	26	(23.2)	15	(13.4)	5	(4.5)
TYPE OF CLASS:												
Coop Sr. Level	58	51.8	9	15.5	27	46.6	14	24.1	7	12.1	1	1.7
Not Coop Jr./Sr.	48	42.8	9	18.8	19	39.5	12	25.0	6	12.5	2	4.2
Related	6	5.4	-	--	2	33.3	-	--	2	33.3	2	33.4
TOTAL	112	100.0	18	(16.1)	48	(42.8)	26	(23.2)	15	(13.4)	5	(4.5)
Chi-square = 17.17, 8 df, Sig. at .05 level												
SEX:												
Male	28	25.0	2	7.1	13	46.4	7	25.0	5	17.9	1	3.6
Female	84	75.0	16	19.0	35	41.7	19	22.6	10	11.9	4	4.8
TOTAL	112	100.0	18	(16.1)	48	(42.8)	26	(23.2)	15	(13.4)	5	(4.5)

The number of students in this subsample was smaller than in the other two discrepancy score analyses but the proportion of males to females remained about the same as in previous analyses, 25.0 percent males and 75.0 percent females. Therefore, the discussion of percents rather than the number of cases in each category is appropriate for comparisons.

Mother Group Discrepancy Scores: The percents of students in the five group discrepancy score categories were more evenly distributed in this analysis than in the self and father group discrepancy scores analyses. This more even distribution indicated more discrepancy in this analysis than in the previous two analyses. There were 29.5 percent of this subsample who had a group discrepancy score of 0, 15.2 percent with a score of 1, 25.9 percent with a score of 2, 20.5 percent with a score of 3, and 8.9 percent with a score of 4.

The cross-tabulation by student's sex showed that the distribution for male students was quite different from that of female students. Almost one third of the female students, 32.1 percent, had a score of 0 and 21.4 percent of the male students had that score. Students with the score of 1 were represented by 13.1 percent of the female students and 21.4 percent of the male students. The percents are more nearly alike in the score category of 2 with 26.2 percent of the female and 25.0 percent of the male students with that score. The percents differed again with the score of 3 with 21.4 percent of the female and 17.9 percent of the male students who had that score. The most discrepant score, 4, had 7.1 percent of the females and 14.3 percent of the males in this subsample.

Mother Level Discrepancy Scores: The distribution across the level discrepancy score categories was more evenly distributed in this analysis than the comparable distribution in the self and father level discrepancy scores which, again, indicated that there was more discrepancy in this analysis than in the previous analyses. However, with two exceptions, the differences in percents are small between the male and female students in each score category. The distribution as a whole had 16.1 percent with a score of 0 and making up that group were 19.0 percent of the female students and 7.1 percent of the male students. The group of students with a score of 1 were 42.8 percent of the total subsample representing 46.4 percent of the

male students and 41.7 percent of the female students. The percents for female and male students in the remaining three score categories of 2, 3, and 4 were similar to the overall distribution of 23.2 percent with a score of 2, 13.4 percent with a score of 3, and 4.5 percent with a score of 4.

Summary and Discussion of Mother Discrepancy Scores: A comparison of the percent distribution as a whole between the mother and father group discrepancy scores revealed that nearly identical percents of each distribution had the discrepancy score of 0, 29.5 percent of the mother scores and 29.6 percent of the father scores. However, the percents in the remaining distributions differed greatly. Those students with a score of 1 represented 15.2 percent of the mother scores but 34.7 percent of the father scores which indicated that, overall, students had less discrepancy between their choice of an occupational group and their fathers' occupation in a sample where the females outnumber the males 3 to 1. The remaining percents in the distribution of the father group discrepancy scores were smaller than their counterparts of the mother group discrepancy scores.

Even though this analysis of mother group discrepancy scores showed them to be more discrepant than the other group discrepancy scores, the combined percents of male students with the less-discrepant mother group scores of 0 and 1 were 42.8 percent compared to the combined percents of female students of 45.2 percent which might indicate that, to whatever extent the mother's influence is revealed in this analysis, female students appeared to be no more influenced by their mother's occupationl group than were the male students.

The pattern of level discrepancy scores between the mothers and daughters is not so clear as that between the fathers' and sons' level discrepancy scores. As shown in Table 27B, the levels of the mothers' occupations were distributed across five of the six levels and the choice of occupational level by their daughters were as diversely distributed, some choosing occupations at levels below their mother's occupation and others above. That widely dispersed distribution across levels would indicate that the mother's occupational level had very little influence on either her son's or daughter's choice of occupational level.

Analysis of Discrepancy Scores

Assumptions For Further Analysis of Discrepancy Scores: The analyses and comparisons of the three pairs of discrepancy scores indicated that there were no significant differences in these scores between the male and female students of this study. This provided the basis on which to assume that, relative to sex of student and discrepancy scores, the total sample should be considered more homogeneous than different which, in turn, simplified the further analysis of the discrepancy scores data in what the dimension of sex did not need to be a major factor.

Group Discrepancy Scores: A one-way analysis of variance (ANOVA) was conducted for the three group discrepancy scores (self, father, and mother) where the independent variable was each individual student and the dependent variable was the three discrepancy scores of occupational group. The grand mean of the group discrepancy scores was 1.42; the mean of the self group discrepancy scores was 1.37 with an N (number of cases) of 318, the mean of the father scores was 1.37 with an N of 176, and the mean of the mother scores was 1.65 with an N of 112. No statistically significant differences were found among the means of the three group discrepancy scores. It is, however, apparent that the mean of the mother group discrepancy scores was relatively different from the means of the other two scores.

Level Discrepancy Scores: A one-way ANOVA was conducted for the three level discrepancy scores in a design similar to the one described above. A significant difference at the .001 level was found among the means of level discrepancy scores of self, father, and mother. The grand mean was 1.11, the mean of the self level discrepancy scores was 1.00 with an N of 318, the mean of the father scores was 1.09 with an N of 176, and the mean of the mother scores was 1.47 with an N of 112. The means of the self and father level discrepancy scores were similar to each other but the mean of the mother scores was much larger than either of the other two means, as was the case in the analysis of the group discrepancy scores described above.

A comparison of the means of the three group discrepancy scores and the three level discrepancy scores would indicate that the two occupations named by the student as those he was considering entering (self comparison) were in occupational groups and at occupational levels more closely associated

with each other than the student's occupational choice was associated with either his father's or mother's occupational group and level, most especially dissimilar to his mother's occupational group and level.

The disproportionate numbers of male and female students in this study were not a factor in these analyses as shown in the cross-tabulations and Chi-square analyses of all three discrepancy scores by sex shown in Tables 28, 29, and 30.

Correlations Between Discrepancy Scores: Pearson product-moment correlations were computed for every possible combination of pairs of the six discrepancy scores (group and level discrepancy scores for self, father, and mother). Nearly all correlations were statistically significant. Table 31 shows the correlation matrix.

The most significant correlations were those between father and mother discrepancy scores for both occupational group and level. The two highest correlations were between the discrepancy scores of father's group and mother's group and between the father's level and the mother's level. This indicated that where a student's occupational choice was the same as or slightly discrepant from his father's occupational group, it was also the same as or slightly discrepant from his mother's; or where his choice was greatly discrepant from his father's occupation, it was also greatly discrepant from his mother's. There was a lower correlation between father's level discrepancy scores and mother's level scores but they were still significantly correlated. This indicated a similar association as described for the father's and mother's group discrepancy scores.

The correlation between self group discrepancy scores and self level scores was somewhat lower than most of the other correlations but was significant at the .05 level which indicated that where a student's group discrepancy score between his first- and second-listed considered occupations was small, his self level discrepancy score also tended to be small; and where the self group score was great, the self level score tended to be great.

The correlations between self group discrepancy scores and those of father's group and level were significant at the .05 level. This indicated that students with low discrepancy scores between their first- and second-listed considered occupations tended to have low scores between their

TABLE 31. PEARSON CORRELATION COEFFICIENTS BETWEEN VARIABLES OF OCCUPATIONAL GROUP AND LEVEL DISCREPANCY SCORES OF SELF, FATHER, AND MOTHER

DISCREPANCY SCORE		1 Self Group	2 Self Level	3 Father Group	4 Father Level	5 Mother Group
1. Self Group	r	.-				
	N	.-				
2. Self Level	r	.09[c]	-			
	N	318	-			
3. Father Group	r	.14[c]	.00	-		
	N	159	159	-		
4. Father Level	r	.18[c]	.10	.29[a]	.-	
	N	159	159	176	-	
5. Mother Group	r	.13	.09	.45[a]	.29[b]	-
	N	102	102	89	89	-
6. Mother Level	r	.13	.14	.19[c]	.53[a]	.41[a]
	N	102	102	89	89	112

NOTE: r correlation coefficient

N number of matched cases in missing data correlation analysis

[a] Significant at the .001 level or below

[b] Significant at the .01 level or below

[c] Significant at the .05 level or below

occupational choices and their fathers' occupations, or they tended to have high discrepancy scores in all comparisons.

The students' self level discrepancy was not significantly correlated with any other discrepancy variable with the exception of self group discrepancy.

It should be kept in mind that the relatively large number of cases tended to yield statistically significant results even though the magnitude of the correlation index was relatively small. Consequently, the relative size of the r should be noted in interpreting these correlations and findings.

Summary: Overall, the significance of the correlations between five of the six discrepancy variables, omitting self level scores, indicated that students tended to fall into two groups--those with generally low scores on all of the five discrepancy variables and those with generally high scores on all five. The cross-tabulations of discrepancy scores, shown in Tables 28, 29, and 30, provided indication that the students were about equally divided between those with low group and level discrepancy scores of 0 and 1 and those with higher scores of 2, 3, and 4. In addition, those tables provided indication that the sex of the student was not a factor in high and low discrepancy scores, that the males and females were nearly evenly divided between high and low scores.

SOURCES OF HELPFUL OCCUPATIONAL INFORMATION

Of great interest in this study was the identification of sources of occupational information which a high school student identified as useful to him. Of equal interest were the relative helpfulness to the student of the sources as he saw them and the relationships, if any, of the sources to other data such as the computed discrepancy scores of occupational group and level and the measure of the student's occupational information which is discussed later in this report.

A somewhat complex question was posed to the students in the Questionnaire which asked them to identify, from a list of ten options of people and things, four sources of information: the sources which were 1) most helpful, 2) second most helpful, 3) third most helpful, and 4) least helpful in giving him

information about his occupational choice. The question was to be answered only by students who had indicated an occupational choice. Based upon the 205 students who had indicated an occupational choice and would be expected to answer this question, there could be four answers from each student making a total of 820 responses to this question across all options. There were 811 total responses to this question.

The options for this question were designed to include individuals who had been previously identified as having input into an adolescent's occupational choice-making; namely, father, mother, teacher, and school counselor. Three other groups of people were added as options to determine how much, if any, information they may have provided students. Those three groups of people were 1) other relatives, meaning other than the student's parents, 2) friends, and 3) people whom the student knew and who were employed in the kind of work the student had chosen for himself, hereafter referred to as workers. The three remaining options were 1) television and radio programs and documentaries, hereafter referred to as TV and radio; 2) books and magazines with articles about their chosen occupation; and 3) pamphlets describing their chosen career.

The question was not asked whether the student actively sought information from these sources or acquired that information casually.

Presentation of Analyses

The order of presentation of data in this section will differ from that in previous sections. The data relative to the ten sources of occupational information included in the Questionnaire were analyzed by two cross-tabulations and as independent variables in two-way analyses of variance of discrepancy scores. In order to synthesize all the analyses data for each of the ten sources, the sources will be presented one at a time with all of the analyses pertaining to each source.

Cross-tabulation of Total Subsample: A cross-tabulation was made of the data by source of information by degree of helpfulness. Table 32 shows the results of the cross-tabulation of the 811 total responses and a sum of ranks and order of rank to provide an index of the overall relative helpfulness to the students of each source. The sum of ranks included the responses

TABLE 32. SOURCES OF HELPFUL INFORMATION FOR STUDENT'S OCCUPATIONAL CHOICE

	TOTAL (Helpful Sources)	Order and Sum of Ranks		RELATIVE HELPFULNESS							LEAST HELPFUL	
				Most Helpful		Second Most Helpful		Third Most Helpful		TOTAL		
	N	a	b	N	%	N	%	N	%	%	Rank	TOTAL N
SOURCE:												
Mother	113	1	255	55	48.7	32	28.3	26	23.0	100.0	7	13
Teacher	96	2	219	50	52.0	23	24.0	23	24.0	100.0	9	11
Workers	90	3	195	41	45.6	23	25.6	26	28.8	100.0	10	8
Father	83	4	165	21	25.3	40	48.2	22	26.5	100.0	5	15
Friend	59	5	103	13	22.0	18	30.5	28	47.5	100.0	3	29
Books/Magazines	44	6	81	11	25.0	15	34.1	18	40.9	100.0	8	12
Pamphlets	39	7	73	11	28.2	12	30.8	16	41.0	100.0	6	14
Other Relative	39	8	63	3	7.6	18	46.2	18	46.2	100.0	4	21
Counselor	33	9	56	6	18.2	11	33.3	16	48.5	100.0	2	35
TV and Radio	18	10	32	2	11.1	10	55.6	6	33.3	100.0	1	39
TOTAL				213		202		199				197
% of TOTAL SAMPLE (366)				58.2		55.2		54.4				53.8

a Order of Ranks; b Sum of Ranks

of first, second, and third most helpful sources of information omitting the responses of "least helpful" for each source. The value of the sum of ranks was computed by giving the value of 3 to "most helpful," the value of 2 to "second most helpful," and the value of 1 to "third most helpful" responses and cumulatively multiplying those values by the number of responses for each respective option. The order of ranks was based upon the value of the sums of ranks.

The sums of ranks values indicated that the five most helpful sources of occupational information, in order of helpfulness, were 1) mother, 2) teacher, 3) workers, 4) father, and 5) friends. The values of the remaining sums of ranks decreased considerably after these five options.

Cross-tabulation by Sex: These data were also cross-tabulated by the sex of the student and Table 33 provides the detail of those data. The probable distribution of these data by curriculum can be inferred from this table since males represented primarily the Industrial curriculum and the females represented the Office and HERO curricula.

Separate sums of ranks were computed on the responses of male and female students and, for the male students, showed a reordered rank of relative helpfulness of the sources of information from that of the subsample as a whole reported in Table 32. The order of ranks reported in Table 32 is identical to the order of ranks based on the responses of female students.

The sums of ranks for the top three sources of helpful information for male students were very close; father ranked first with a sum of ranks value of 50, teachers ranked second with a value of 49, and workers ranked third with a value of 48. Male students ranked their mothers as fourth in helpfulness and books and magazines as fifth. The remaining sources were ranked overall by male students as follows: sixth ranked were pamphlets, seventh ranked were other relatives, eighth ranked were TV and radio, ninth ranked were friends, and tenth ranked were counselors.

Female students ranked as the top four the same sources as did the male students; however, their first-ranked and fourth-ranked were the reverse of the male students' rankings. Female students ranked their mother as their overall most helpful source of occupational information and half of those who ranked mother as a helpful source ranked her as their "most helpful source."

TABLE 33. SOURCES OF HELPFUL INFORMATION FOR STUDENT'S OCCUPATIONAL CHOICE BY SEX

SOURCE:	Sex of Student	Order and Sum of Ranks by Sex: Male a	Male b	Female a	Female b	TOTAL M N	TOTAL F N	RELATIVE HELPFULNESS: Most Helpful N	Most Helpful %	Second Most Helpful N	Second Most Helpful %	Third Most Helpful N	Third Most Helpful %	LEAST HELPFUL M N	LEAST HELPFUL F N
Mother	M	4	34			16		6	37.5	6	37.5	4	25.0	6	
	F			1	221		97	49	50.5	26	26.8	22	22.7		7
Teacher	M	2	49			22		10	45.5	7	31.8	5	22.7	3	
	F			2	170		74	40	54.1	16	21.6	18	24.3		8
Workers	M	3	48			24		8	33.3	8	33.3	8	33.4	2	
	F			3	147		66	33	50.0	15	22.7	18	27.3		6
Father	M	1	50			23		9	39.1	9	39.1	5	21.8	0	
	F			4	115		60	12	20.0	31	51.7	17	28.3		15
Friend	M	9	13			8		4	50.0	1	12.5	3	37.5	8	
	F			5	86		51	9	17.6	17	33.3	25	49.1		21
Books/Magazines	M	5	33			15		6	40.0	6	40.0	3	20.0	2	
	F			6	48		29	5	17.2	9	31.1	15	51.7		10
Pamphlets	M	6	18			10		3	30.0	2	20.0	5	50.0	5	
	F			7	55		29	8	27.6	10	34.5	11	37.9		9
Other Relatives	M	7	17			11		2	18.2	2	18.2	7	63.6	4	
	F			8	46		28	1	3.6	16	57.1	11	39.3		17
Counselor	M	10	13			9		1	11.1	2	22.2	6	66.7	11	
	F			9	43		24	5	20.8	9	37.5	10	41.7		24
TV and Radio	M	8	15			8		1	12.5	5	62.5	2	25.0	5	
	F			10	17		10	1	10.0	5	50.0	4	40.0		34
TOTAL														46	151

[a] Order of Rank [b] Sum of Ranks

They ranked, as did the male students, teachers as second overall most helpful and workers as third. Female students ranked their father as fourth. About half, 51.7 percent, of the female students who named father as a helpful source ranked him as "second most helpful" and 28.3 percent ranked him as "third most helpful."

Female and male students differed markedly in their overall rankings of friends as a source of information. Female students ranked friends as fifth and male students ranked friends as ninth source. In the responses for "least helpful" source, friends were named by 21 female students as least helpful compared to 51 female students who named them as helpful sources. In contrast, the same number of male students named friends as least helpful as named them helpful with 8 students in each group.

The remaining overall rankings by female students did not differ much from the rankings made by male students.

There were two other groups of responses to the "least helpful" sources which provided marked contrasts with responses to the same sources as being helpful. Ten female students indicated that TV and radio were helpful sources, 34 female students indicated that they were their least helpful sources. To the option of counselor, 24 female students named counselors as least helpful and 24 named them as helpful sources.

Because the rankings of the subsample as a whole in this analysis consistently reflect the rankings made by female students since they outnumber the males 3 to 1 in this sample, the discussion of rankings will be confined to those by the male and female students and not by the whole subsample.

Analysis of Discrepancy Scores by Sources of Information: Two-way analyses of variance (ANOVA) were computed of the two sets (group and level) of three discrepancy scores (self, father, and mother) by the ten sources of occupational information. The purpose of these analyses was to determine if the relative helpfulness of the various sources of information was related to either or both of the two sets of three occupational discrepancy scores.

The discrepancy scores were treated as two sets, one group and one level, of three discrepancy scores each; the self score, the discrepancy between the student's first-listed and second-listed considered occupations; the

father score, the discrepancy between the student's occupational choice and his father's occupation; and the mother score, the discrepancy between the student's occupational choice and his mother's occupation. Both group and level discrepancy scores ranged from 0, indicating agreement, to 4, indicating maximum discrepancy. The responses to the various sources of occupational information were collapsed into two categories; the first category included all responses of "most helpful," "second most helpful," and "third most helpful" to a given source of information and the second category included the responses of "least helpful" to that given source.

For the two-way ANOVA's, the two independent variables were the agreement with the student's occupational preferences (with self, father, and mother discrepancy scores) and the relative helpfulness of the sources of occupational information (helpful or least helpful).

The number of students varied with each analysis of variance of discrepancy scores for each of the ten specific sources of occupational information due primarily to the number of students choosing to respond to each option of the question. Of the ten sources, students were to indicate, in order, the three which were helpful and the one which was least helpful; therefore, each student responded to only four of the ten sources of information. And, further, the number of students varied in each set of discrepancy scores due to the different numbers of students with discrepancy scores of self, father, and mother. The largest number of responses was for the self discrepancy score since most of the students indicated a first- and second-listed considered occupation. However, the number who indicated an occupational choice for themselves and an occupation for their father (necessary for the father discrepancy score) was small and smaller still was the number of students who had indicated an occupational choice for themselves and an occupation for their mother (necessary for the mother discrepancy score). Therefore, the N (number of students) given in each analysis will be the N of the self discrepancy scores and, within that number, the N of those who named that source helpful and the N of those who named it least helpful.

Reporting of ANOVA Results: Two-way ANOVA's were computed of both group and level discrepancy scores by each of the ten sources of information and by the agreement with the occupational preferences of the students. However,

only selected results, those which may have educational significance, will be reported rather than reporting the full statistical results of each analysis.

In half of the two-way ANOVA's there were significant main effects on the means of group and level discrepancy scores due to the agreement with the student's occupational preferences. However, in every analysis, whether statistically significant or not, the mean of the mother group or level discrepancy scores was higher than those of the self or father group or level discrepancy mean scores in the same analysis. These findings support the previously reported one-way ANOVA's which showed that there were significant differences among the three means of level discrepancy scores. While there were no statistically significant differences among the three group discrepancy scores in the one-way ANOVA, again, in every case, the mean of the mother group discrepancy scores was much higher than the means of either the self or father group discrepancy scores.

Attention is called at this point to these differences among mean group and mean level discrepancy scores in order to eliminate the necessity of repeatedly reporting in the discussion of each of the ten sources of information that the mean of the mother discrepancy scores was much higher than the means of the self and father discrepancy scores.

Mother as Source of Information

Rankings: Mother was ranked first by female students as their most helpful overall source of occupational information and ranked fourth overall by male students. Half, 50.5 percent, of the female students and 37.5 percent of the male students who named mother as a helpful source indicated she was their "most helpful" source. Of the remaining distribution of male and female students, more of each group named mother as "second most helpful" than named her "third most helpful." Seven female and six male students named mother as a "least helpful" source of information which ranked this source seventh least helpful of the ten sources.

ANOVA's: The N for the two-way ANOVA's of group and level discrepancy scores by helpfulness of mother as a source of occupational information was 107, 95 naming her helpful and 12 naming her least helpful. The difference between the N in these analyses and the N reported in Tables 32 and 33 is

accounted for by students who had responses to all questions relevant to this analysis except one or both of the first- and second-listed considered occupations, therefore not having a self discrepancy score.

There was no statistically significant main effect on group or level discrepancy scores by the relative helpfulness of the mother as a source of information. The grand mean of the group discrepancy scores was 1.45 which was identical to the means of discrepancy scores both where the mother was named as helpful and where she was named as least helpful. The grand mean of the level discrepancy scores was 1.39; where the mother was helpful, the mean was 1.23 and where she was least helpful, the mean was 1.55. This indicated that the mother's helpfulness or lack of it had no significant effect on the means of the three group and level discrepancy scores.

The results of the analyses of discrepancy scores related to the relative helpfulness of mothers as sources of occupational information and the cross-tabulations of female students' choices of occupations with their mothers' occupations do not provide for a clear cut interpretation. The ANOVA's of discrepancy scores indicated that the helpfulness of mothers had no significant effect on the discrepancy scores. The cross-tabulations of female students' choices with mothers' occupations showed a very dispersed pattern across occupational groups and levels indicating that the mother's occupation was more a point of departure than an influence to choose the same occupational group or level. Yet, mother was named as the most helpful overall source of occupational information for female students and fourth overall source for male students. It may be that the helpful information which mothers provided was more in the form of information regarding employment in general or encouragement to pursue whatever occupation her son or daughter seemed interested in and encouragement to strive for higher level occupations than her own. To illustrate this point, the mean of the mother level discrepancy scores in this analysis was 1.84 compared to the mean of self level discrepancy of 1.11 and of father of 1.22. This difference was significant at the .01 level. The group discrepancy scores are comparatively lower than the level discrepancy scores but that, in part, can be explained by the fact that most employed mothers were employed in the Organization group which also included nearly all the occupations for which Office

and Distributive programs provide training and in which many of the students chose an occupation.

Father as Source of Information

Rankings: Father was ranked first overall by male students and fourth overall by female students as a source of helpful occupational information. The same proportion of male students named father as "most helpful" as named him "second most helpful," 39.1 percent of the male students in each case. Female students, by comparison, tended to name father as "second" and "third most helpful" source. Over half of the female students, 51.7 percent, who named father as a helpful source named him as their "second most helpful" source, 28.3 percent named him as "third most helpful" source, and the remaining 20.0 percent of the female students named him as their "most helpful" source. No male students named father as "least helpful" but 15 female students named him as such. In the overall rankings of being named "least helpful," father ranked fifth of the ten sources.

ANOVA's: The N for the two-way ANOVA's of group and level discrepancy scores by relative helpfulness of the father as a source of information was 85, 72 naming him as a helpful source and 13 naming him as their least helpful source. There was a significant main effect at the .05 level due to the helpfulness of the father on the group discrepancy scores but there was no significant main effect on the level discrepancy scores.

The grand mean of the group discrepancy scores was 1.37; the mean for helpful fathers was 1.14 and for least helpful fathers was 1.61. There was comparatively little difference between the mean discrepancy scores between the first- and second-listed considered occupations where the father was helpful (mean of 1.18) and where he was least helpful (mean of 1.15). However, the mean of the father group discrepancy scores was 1.32; but where the father was helpful, the mean was .97; and where he was least helpful, the mean was 1.67. This indicated that where the father was a helpful source, his son or daughter had much less discrepancy between his or her choice of occupational group and the father's occupational group. This may indicate that a father was able to be helpful with occupational information when his son's or daughter's occupational choice was similar to his own but was less helpful when that choice was relatively discrepant from his own.

While there was not a significant difference on level discrepancy scores due to the helpfulness of the father, what difference there was provided interesting information. The grand mean of the father level discrepancy scores was 1.07. The mean where the father was helpful of 1.05 varied slightly from the mean where the father was least helpful of 1.08. However, the mean of the self level discrepancy score was .94; where the father was helpful, the mean was 1.04 and where he was least helpful, the mean was lower at .85. This higher mean of level discrepancy where the father was helpful than where he was least helpful might indicate that he was encouraging his son or daughter to consider the relatively higher level occupations.

Teachers as Source of Information

Rankings: Teachers were ranked second overall most helpful source of occupational information by both male and female students. More students named teachers as "most helpful" source than named her "second" or "third most helpful" source; 22 or 45.5 percent of the male students named teachers as their "most helpful" source and that was 1 student less than named father as their "most helpful" source of information. Just over half, 54.1 percent, of the female students named teachers as their "most helpful" source.

Three male and 8 female students named teachers as their "least helpful" source of information which ranked teachers ninth of the ten least helpful sources.

ANOVA's: The two-way ANOVA's of group and level discrepancy scores by helpfulness of teachers was based on an N of 92, 82 who named teachers as helpful and 10 who named them as least helpful. There were no significant main effects on group discrepancy scores due to helpfulness of teachers. However, where teachers were helpful, the mean of the group discrepancy scores was higher than where teachers were least helpful. The grand mean of the group discrepancy scores in this analysis was 1.21; where teachers were helpful, the mean score was 1.30; and where teachers were least helpful, the mean score was 1.13.

There was a significant main effect at the .05 level on level discrepancy scores due to the helpfulness of teachers as sources of information. The grand mean in the analysis of level discrepancy scores was 1.32; where

teachers were helpful, the mean was 1.09; and where they were least helpful, the mean was 1.56.

The analyses of discrepancy scores where teachers were a source of information have indicated that group discrepancy scores are greater where teachers were helpful rather than least helpful but the level discrepancy scores are smaller where teachers were helpful.

Workers as Source of Information

Rankings: Workers were ranked third by both male and female students as a helpful source of occupational information. Workers were defined on the Questionnaire to students as "people you know in that kind of work" meaning the kind of work which was the student's occupational choice. The male students' responses were equally distributed across "most helpful," "second most helpful," and "third most helpful" categories with one third of the responses in each category. Exactly half of the 66 female students who named workers as a source of information named them as their "most helpful" source, 22.7 percent named them as "second most helpful," and the remaining 27.3 percent named them as "third most helpful" source of information. Only 2 males and 6 females named workers as their "least helpful" source which ranked workers last of the "least helpful" sources of information.

A cross-tabulation was made of the responses to the questions dealing with helpfulness of sources of information by the type of class in which the student was enrolled to determine what proportion of those who named workers as helpful were in cooperative education classes. Students in these classes had daily contact with workers in the occupation of the student's choice, assuming his cooperative work station reflected his occupational choice, which might explain the high ranking of workers as a helpful source of occupational information. The analysis showed, however, that the students who named workers as helpful were about equally divided between cooperative classes and senior level, not cooperative classes which indicated that students other than cooperative students were relating to workers about their occupational choices.

ANOVA's: The N in the two-way ANOVA's of group and level discrepancy scores by helpfulness of workers was 88, 82 who named workers as helpful

and 6 who named them as least helpful. There was no significant main effect due to the helpfulness of workers on the group discrepancy scores. The grand mean of the group discrepancy scores was 1.51; where workers were helpful, the mean was 1.47; and where they were least helpful, the mean was 1.54. The means of the self group discrepancy scores differed more than the means across all three sets of discrepancy scores. The mean of the self discrepancy scores was 1.78; where the workers were named as helpful, the mean was 1.39; but where they were named least helpful, the mean was 2.17.

There was no significant main effect on level discrepancy scores due to the helpfulness of workers; but where they were helpful, the mean was greater. The grand mean of the level discrepancy scores was .98; where workers were helpful, the mean was 1.02; and where they were least helpful, the mean was .94. This grand mean was the smallest grand mean of all two-way ANOVA's of group and level discrepancy scores by helpfulness of the ten listed sources of information. The mean of the self level discrepancy scores was .74; where workers were named as helpful, the mean was .99; but where they were named as least helpful, the mean was .50.

The relatively smaller means of group and level discrepancy scores in these analyses, reflecting closer agreement between the pairs of occupations compared, may be due to the fact that the subsample of students who reported workers as a reference group tended to relate to workers who have occupations similar to their own preferences and similar to their fathers' and mothers' actual occupations.

The larger mean of level discrepancy scores where workers were named helpful than where they were named least helpful may be due to the workers' encouraging students to ultimately strive for higher level occupations than the workers then held or that the students were giving first consideration to obtaining.

Friends as Source of Information

Rankings: Friends were ranked overall fifth by female students and ninth by male students as a source of helpful occupational information. Of the 51 female students naming friends as a helpful source, half, 25 students, named them as "third most helpful;" a third, 17 students, named them "second

most helpful;" and the remaining 9 students named friends as their "most helpful" source. Twenty-one female students named friends as their "least helpful" source.

Only 8 male students named friends as a helpful source of information but 4 of those named them as their "most helpful" source, 3 named them as their "third most helpful" source, and 1 as "second most helpful" source. There were also 8 male students who named friends as their "least helpful" source. Overall, friends ranked third among the ten least helpful sources.

A cross-tabulation was made of these data by type of class in which the students who named friends as a helpful or least helpful source were enrolled. The purpose of this analysis was to determine if a large proportion of those students were in cooperative classes and possibly were naming fellow workers as friends and sources of occupational information. However, the analysis showed that, in comparison to their proportion of the total sample, there were relatively fewer cooperative class students and relatively more senior level, not cooperative, class students who responded to friends as a source of information.

ANOVA's: The two-way ANOVA's of discrepancy scores by helpfulness of friends as a source of information had a maximum N of 73 students, 49 of whom named friends as a helpful source and 24 of whom named them as a least helpful source. There was a significant main effect at the .05 level due to the helpfulness of friends on the group discrepancy scores. The grand mean of the group discrepancy scores was 1.34; where friends were helpful, the mean was 1.55; and where they were least helpful, the mean was 1.14.

The means of the self group discrepancy scores did not differ much but those of the father group discrepancy scores did differ markedly between those students who named friends as helpful and those who named them least helpful. The mean self group discrepancy score was 1.11; where friends were helpful, the mean was 1.14; and where they were least helpful, it was 1.08. On the other hand, the mean father group discrepancy score was 1.24; where friends were helpful, the mean was 1.71; and where they were least helpful, the mean was .77.

There was not a significant main effect on level discrepancy scores due to the helpfulness of friends as sources of information. The grand mean of

the level discrepancy scores was 1.20; where friends were helpful, the mean was 1.26; and where they were least helpful, the mean was 1.15.

The analyses of group and level discrepancy scores by helpfulness of friends indicated that where friends were helpful, the discrepancy scores of group and level were greater than where friends were least helpful. The helpfulness or lack of it of friends seemed to have a greater effect on the means of the father group and level discrepancy scores than upon the means of self discrepancy scores which might indicate that the helpfulness of friends ran counter to helpfulness of fathers and even of mothers since the same relationship existed with the means of mother group and level scores--the means were higher where friends were helpful. Friends may have exchanged "information" which was something akin to wishful thinking when they discussed among themselves their future occupations and total careers thus creating greater discrepancy with fathers' and mothers' occupations and with realistic occupational choices.

Books and Magazines as Sources of Information

Rankings: Books and magazines were ranked fifth by male students and sixth by female students as sources of helpful occupational information. Of the 15 male students naming them as helpful sources, 6 named them "most helpful," 6 named them "second most helpful," and 3 named them "third most helpful." Two male students named them as their "least helpful sources.

Of the 29 female students naming books and magazines as helpful sources of information, 15 named them as "third most helpful," 9 as "second most helpful," and 5 as "most helpful" sources. Ten female students named them as their "least helpful" source of information which, combined with the two similar responses by male students, ranked them as eighth of the ten least helpful sources.

ANOVA's: The two-way ANOVA's of group and level discrepancy scores by helpfulness of books and magazines as sources of occupational information were based upon an N of 53 students, 43 who named them as helpful sources and 10 who named them as least helpful sources. There was a significant main effect at the .05 level on the group discrepancy scores by helpfulness of these sources but no significant main effect on the level discrepancy scores.

The grand mean of the group discrepancy scores was 1.38; the mean where books and magazines were named as helpful was 1.69, significantly higher than where they were named as least helpful with a mean of 1.07. The means of the self group discrepancy scores seemed more affected than the father or mother discrepancy scores. The mean of the self group discrepancy scores was 1.26; where books and magazines were helpful, the mean was 1.81; and where they were least helpful, the mean was .70.

The grand mean of the level discrepancy scores was 1.18; where books and magazines were helpful, the mean was 1.26; and where they were least helpful, the mean was 1.10. The means of the self level discrepancy scores were reversed in relative proportion to the means of the self group discrepancy scores. The self level mean scores were: overall, .85; where books and magazines were helpful, .70; where they were least helpful, 1.00.

These analyses seemed to show that students who looked to books and magazines for helpful occupational information had a significantly higher mean group discrepancy score but somewhat lower mean level discrepancy score than did students who considered these sources as least helpful. This may, in part, be accounted for by the hypothesis that students are introduced to and only partially informed of unusual and professional occupations through books and magazines which have an effect on the range of occupations to which they give thought of entering.

Pamphlets as Source of Information

Rankings: Pamphlets were ranked overall sixth by male students and seventh by female students as a source of helpful occupational information. The students who named them as a helpful source, 10 males and 29 females, tended to name them as "third" or "second most helpful" sources. Five male and 9 female students named pamphlets as their "least helpful" source ranking them sixth among the ten least helpful sources of information.

ANOVA's: The two-way ANOVA's of discrepancy scores by helpfulness of pamphlets as sources of information were based on an N of 49 students, 37 who named them a helpful source and 12 who named them their least helpful source. There were no significant main effects on either group or level discrepancy scores due to the helpfulness of pamphlets as sources of information.

The grand mean of the group discrepancy scores was 1.68; where pamphlets were named as helpful, the mean was 1.71; and where they were named as least helpful, the mean was 1.64. The grand mean of the level discrepancy scores was 1.13; where pamphlets were helpful, the mean was 1.20; and where they were least helpful, the mean was 1.06.

Although the differences were not significant between mean group and level discrepancy scores relative to the helpfulness of pamphlets, the means were somewhat higher for students who look to pamphlets as sources of information than for students who considered them least helpful sources.

Other Relatives as Source of Information

Rankings: Other relatives, other than a student's mother and father, were ranked seventh by male students and eighth by female students as a helpful source of occupational information. The 11 male and 28 female students named other relatives as "second" and "third most helpful" source of information. Four male and 17 female students named them as their least helpful source of information which ranked them fourth among the ten least helpful sources.

ANOVA's: The two-way ANOVA's of discrepancy scores by helpfulness of other relatives were based on an N of 55 students, 35 who named them as helpful and 20 who named them as least helpful. There were significant main effects on both group and level discrepancy scores, both at the .01 level, due to the helpfulness of other relatives as sources of information.

The grand mean of the group discrepancy scores was 1.26. Where other relatives were helpful, the mean was .94, significantly lower than the mean of 1.57 where they were named as least helpful. There were great differences between group means of self and father discrepancy scores where other relatives were helpful and where they were not. The mean self group discrepancy score was 1.01; where other relatives were helpful, the mean was .63; and where they were least helpful, the mean was 1.40. The mean of the father group discrepancy scores was 1.34; where other relatives were helpful, the mean was .96; and where they were least helpful, the mean was 1.72.

The grand mean of the level discrepancy scores was 1.24. Where other relatives were named as helpful sources, the mean was .98; and where they

were named as least helpful, the mean was 1.50. The means of the self level discrepancy scores were: overall, 1.01; where other relatives were helpful, .83; where they were least helpful, 1.20.

The results of these analyses indicated that students who got helpful occupational information from other relatives had significantly smaller mean group and level discrepancy scores than did students who named them as their least helpful source. This might indicate that students sought or accepted occupational information from relatives in similar occupational groups as the student's preferences and, therefore, they were more helpful sources. However, the number of students who named other relatives as a helpful source of occupational information was small thus limiting any strong conclusions about the significant differences which were revealed by the analyses.

Counselors as Source of Information

Rankings: Counselors were ranked ninth by female students and tenth by male students as a source of helpful occupational information among the ten sources mentioned in the Questionnaire. The 9 male and 24 female students who named counselors as a helpful source of information named them primarily as "second" and "third most helpful" sources. Eleven male and 24 female students named counselors as their "least helpful" source of information which ranked counselors second among the ten least helpful sources of occupational information.

ANOVA's: The two-way ANOVA's of discrepancy scores by helpfulness of counselors as sources of information were based on an N of 60 students, 27 naming them as helpful sources and 33 naming them as least helpful sources. Counselors and TV and radio, discussed next, were the only two potential sources of helpful occupational information which more students named as their least helpful source rather than a helpful source.

There were no significant main effects on either group or level discrepancy scores by the helpfulness or lack of it of counselors as a source of occupational information. The grand mean of the group discrepancy scores was 1.63; where counselors were named as helpful, the mean was 1.54; and where they were named as least helpful, the mean was 1.73. The grand mean of the level discrepancy scores was 1.15; where counselors were named as

helpful the mean was 1.31; and where they were named as least helpful, the mean was 1.00.

The means of the self group discrepancy scores were: overall, 1.43; where counselors were named as helpful, 1.19; where they were named as least helpful, 1.67. The means of the self level discrepancy scores were: overall, .96; where counselors were named as helpful, .93; where they were named as least helpful, 1.00.

Students who named counselors as a helpful source of occupational information tended to have somewhat smaller mean group and level discrepancy scores than did those students who considered counselors as their least helpful source of information.

One possible explanation for the number of students who named counselors as their "least helpful" source of information, which was two students more than named them as a helpful source, is that students had somewhat exaggerated expectations of counselors and what information, occupational and otherwise, and solutions to problems counselors have at hand ready to provide to students at all times. When those expectations are not fulfilled, students may become critical of counselors, thus producing the kind of response this option received.

TV and Radio as Sources of Information

Rankings: TV and radio were ranked eighth by male students and tenth of ten by female students as sources of helpful occupational information. Five of the 8 males and 5 of the 10 females who named these sources as helpful named them as "second most helpful" source of information. More students named these sources as "least helpful" than named them as helpful sources. Five male and 34 female students named them as such which ranked them first among the ten sources named as least helpful.

ANOVA's: The two-way ANOVA's of group and level discrepancy scores by helpfulness or lack of it of TV and radio were based on an N of 52 students, 18 naming them as helpful sources and 34 naming them as least helpful sources. There was a significant main effect at the .05 level on group discrepancy scores but no significant main effect on level discrepancy scores due to the relative helpfulness of TV and radio as sources of occupational information.

The grand mean of the group discrepancy scores was 1.75; where TV and radio were named as helpful, the mean was 2.23; and where they were named as least helpful, the mean was significantly lower at 1.27. The means of the self group discrepancy scores were: overall, 1.62; where TV and radio were helpful, 2.06; where they were least helpful, 1.18.

The grand mean of the level discrepancy scores was 1.26; where TV and radio were named as helpful sources of information, the mean was 1.42; and where they were named as least helpful, the mean was 1.10.

The results of the analyses indicated that students who named TV and radio as helpful sources of occupational information had higher mean group and level discrepancy scores than did students who named these as their least helpful sources of information. The higher mean discrepancy scores may be a result of the situation where, through TV and radio, students are introduced to and become familiar with the dramatized roles of individuals in many occupations about which they may otherwise never have any information except for the name of an occupation. These occupations, many of them glamorous and with very limited opportunity for entry, provide input into students' fantacies regarding occupational preferences, thus creating larger mean discrepancy scores, especially in the self comparison of first- and second-listed considered occupations.

The naming of TV and radio by so many students as their least helpful source of occupational information presented somewhat of a paradox. It is unlikely that all or even most of the students in this sample have some first-hand knowledge of the occupations and workers in many of the occupations which they have named as their considered occupations or their occupational choice. It is likely, however, that these students did, indeed, acquire much of their information about such occupations through TV and radio, but seeing these sources as less than desirable or appropriate sources of occupational information, they instead named them as their least helpful sources. Whatever the facts may be, using TV and radio as sources of occupational information seems to be associated with high mean group and level discrepancy scores, especially in the comparison between first- and second-listed considered occupations.

Summary of Analyses of Sources of Occupational Information

The interpretation by students of "least helpful" source of occupational information can only be guessed. Some students may have used as a definition that they had little or no contact with that source for the purpose of gaining occupational information. Other students may have named a source as least helpful if they had some expectations of getting information from that source and the expectations were not fulfilled.

Teachers ranked second overall in being a source of helpful occupational information. This may be accounted for, at least in part, by the fact that these students were in vocational classes with vocational teachers who would be expected to have accurate occupational information in their occupational specialty and, further, would be expected to provide the students with that information.

The ranking of workers as third overall helpful source might have been attributed at first glance to the many students who were in cooperative classes which gave them daily contact with workers in their occupational area. However, the cross-tabulation by type of class provided the detail that proportionately as many students not in cooperative programs named workers as a helpful source as did students in cooperative classes.

The overall rankings of helpfulness made known that students felt they got their most helpful occupational information from people and not from written or audiovisual sources.

A question arises about the low ranking of TV and radio as helpful sources and, conversely, the high rankings of them as least helpful sources. When five high school students, not included in this sample, were interviewed by the researcher, all five students mentioned occupational preferences which they were considering or had chosen for themselves. When asked how they found information about those occupations, all five students indicated they got some or most of their information by watching television. One student who was considering being an attorney said she had never seen one at work except through television dramatizations. Many of the occupations named by these students as their occupational choices or considered occupations were those in which the students would probably have little or no personal or first-hand contact with the workers, many of whom are more aptly called performers.

There are probably many explanations for these contradictory student responses and one explanation might be that TV and radio are such subtle sources of information that students did not honestly recognize them as sources of occupational information which they were using. Another possible explanation might be that students who may have recognized that some of their occupational information came to them through TV and radio felt that those were considered somehow less appropriate sources for such information and disregarded them accordingly.

The analyses of discrepancy scores by sources of occupational information were computed on one source of information at a time. An analysis involving all ten sources at once was not possible since any given student responded to only four of the ten sources, three as helpful sources and one as least helpful source.

In the analyses where there were significant main effects due to the helpfulness of a given source of information on the group discrepancy scores, the students who listed friend, teacher, TV and radio, books and magazines, and pamphlets had significantly higher mean group discrepancy scores than did students who listed those same sources as least helpful. And, conversely, students who listed father, mother, other relative, counselor, and workers as helpful sources had significantly lower mean group discrepancy scores than did students listing them as least helpful sources.

The analyses of the level discrepancy scores indicated that there were significant main effects due to helpfulness of two sources of information; namely other relatives and teachers. In the analyses involving these two sources, the students who named these sources as helpful had significantly smaller mean level discrepancy scores than did students who listed them as least helpful. Students who listed other relatives as helpful sources had significantly lower group and level discrepancy scores than did students who listed them as least helpful.

The analyses of TV and radio as a reference source showed the largest group discrepancy scores of all the analyses of sources and the analysis of workers as a reference source showed the smallest level discrepancy scores of all analyses of sources.

At best, these analyses give only an indication of sources of information which are used by students and which are associated with lower mean discrepancy scores. There were obviously many other factors and possibly other sources of information which had an effect on the discrepancy scores.

SOURCES OF INFLUENCE, APPROVAL, AND PRESSURE ON OCCUPATIONAL CHOICE

Within the series of questions to be answered by the students who had indicated an occupational choice were several questions designed to gather data on the sources of influence, approval, and pressure as felt by the student himself related to his making an occupational choice. Five probable sources of influence and approval frequently named in related literature; namely father, mother, closest friends, teachers, and counselors, were subjects of separate questions regarding influence and approval.

Any pressure on students to make an occupational choice, not necessarily a particular occupational choice but a choice of some kind, seemed to come primarily from these probable sources: parents, teachers, and counselors. The sources of mother and father were combined in the question relative to pressure and referred to as parents. Closest friends were not included in the questions regarding sources of pressure since they were not seen as real sources of pressure to make an occupational choice. Those three probable sources of pressure were subjects of three separate questions.

The five questions regarding sources of influence on a student's occupational choice, one question for each of the five identified sources, provided the students with response options of "greatly influenced," "somewhat influenced," and "not influenced at all." The five questions regarding the student's perception of the approval of his occupational choice by those same five sources provided response options of "yes," "no," and "don't know." The three questions regarding sources of pressure to make some occupational choice, a question for each of the three identified sources, provided response options of "great pressure," "some pressure," and "no pressure at all."

Presentation of Analyses

The presentation of the data regarding sources of influence, approval, and pressure will be similar to that of the previous section regarding sources of information; that is, the sources will be presented one or two at a time with the analyses regarding each source.

Cross-tabulations of the data were made to determine the distribution of the responses by the sex of the student. Pearson product-moment correlation coefficients were computed between the relative amounts of influence, approval, and pressure from the identified sources to determine if there were significant relationships among the many sources. One-way ANOVA's were made of the self discrepancy scores of occupational group and level (between a student's first- and second-listed considered occupations) by the student's responses to the questions regarding influence, approval, and pressure. These analyses were made to determine if there were main effects on the self discrepancy scores due to the variables of relative influence, approval, and pressure from the several identified sources. Two-way ANOVA's were made of the discrepancy scores of self, father (between the student's occupational choice and his father's occupation), and mother (between the student's choice and his mother's occupation) by those same responses. The two-way ANOVA's were used to determine if there were any main effects on these discrepancy scores due to the variables of influence, approval, and pressure or any interaction among them.

The results of the cross-tabulations and correlations of responses to sources of influence, approval, and pressure by sex and the one-way ANOVA's of discrepancy scores by those sources will be presented first followed by the discussion of the analyses regarding each of the sources.

Cross-tabulations by Sex: Table 34 provides the detail of the N and percent distribution of responses to the five questions regarding sources of influence on a student's occupational choice by sex. The total N column indicates that varying numbers of students responded to each question. The sums of ranks and order of ranks differed between male and female respondents with the exception of the last-ranked source of influence on student's occupational choice, that source being counselors.

TABLE 34. SOURCES OF INFLUENCE ON STUDENT'S OCCUPATIONAL CHOICE BY SEX

SOURCE:	Sex of Student	Order and Sum of Ranks by Sex: Male a	Male b	Female a	Female b	TOTAL: M N	F N	RELATIVE INFLUENCE: Greatly Influenced N	%	Somewhat Influenced N	%	Not Influenced At All N	%	TOTAL %
Father	M	2	49			46		13	28.3	23	50.0	10	21.7	100.0
	F			4	132		154	33	21.4	66	42.9	55	35.7	100.0
Mother	M	3	45			49		11	22.4	23	47.0	15	30.6	100.0
	F			1	192		169	63	37.3	66	39.0	40	23.7	100.0
Closest Friends	M	4	43			53		11	20.8	21	39.6	21	39.6	100.0
	F			3	148		174	39	22.4	70	40.2	65	37.4	100.0
Teachers	M	1	54			53		20	37.8	14	26.4	19	35.8	100.0
	F			2	176		174	56	32.2	64	36.8	54	31.0	100.0
Counselors	M	5	33			51		8	15.7	17	33.3	26	51.0	100.0
	F			5	92		168	27	16.1	38	22.6	103	61.3	100.0

[a] Order of Rank

[b] Sum of Ranks

Sources of Influence: The rankings by male students of the sources of influence were teachers as first in influence, followed by father as second, mother as third, and closest friends as fourth. Proportionately more male students responded to the "greatly influenced" category for the question regarding teachers as a source of influence than they did to any other source. Over a third, 37.8 percent, felt "greatly influenced" in their occupational choice by their teachers. The largest groups of responses by percents were in the categories of "somewhat influenced" or "not influenced at all." Exactly half of the male students indicated they were "somewhat influenced" by their fathers who were the second-ranked source by male students. Just over half of the male students, 51.0 percent, indicated they were "not influenced at all" by their counselors and a third of the male students indicated they were "somewhat influenced" by them.

Overall, female students ranked their mothers as most influential, teachers as second, closest friends as third, and fathers as fourth of the five sources of influence on their occupational choices. In the category of "greatly influenced" across all five sources of influence, the percents of responses of male and female students were very similar with the exception of those responses to father and mother as sources. A greater proportion of female than male students were "greatly influenced" by their mothers and a greater proportion of male than female students were "greatly influenced" by their fathers.

Sources of Approval: Table 35 shows the N and percent distribution of responses of male and female students of their perception of approval by others of their occupational choice. These data will be referred to as simply approval. Attention must be called to the very small N of those students who indicated that their occupational choice did not meet the approval of the identified sources. In this analysis, the percents of students who felt they had the approval of the identified sources were very similar with the exception that female students felt more approval from their mothers and closest friends than did male students.

The highest percents in the "don't know" category for both male and female students across all five sources were in the question relative to approval of counselors. To that question, 55.8 percent of the male students

TABLE 35. SOURCES OF APPROVAL OF STUDENT'S OCCUPATIONAL CHOICE BY SEX

	TOTAL		STUDENT'S PERCEPTION OF APPROVAL									
			Yes				No				Don't Know	
	Male	Female	Male		Female		Male		Female		Male	Female
	N	N	N	%	N	%	N	%	N	%	N %	N %
SOURCES OF APPROVAL:												
Father	48	162	41	85.4	136	84.0	-	--	4	2.5	7 14.6	22 13.5
Mother	51	174	42	82.4	162	93.1	3	5.8	5	2.9	6 11.8	7 4.0
Closest Friends	53	176	31	58.5	133	75.5	6	11.3	4	2.3	16 30.2	39 22.2
Teachers	53	174	30	56.7	106	60.9	4	7.5	3	1.7	19 35.8	65 37.4
Counselors	52	167	19	36.5	52	31.1	4	7.7	1	0.6	29 55.8	114 68.3

and 68.3 percent of the female students indicated they did not know whether their counselors approved of their occupational choice.

Sources of Pressure: Table 36 shows the detail of N and percent distribution and sums of ranks of the students' responses to the relative pressure they felt from the three identified sources to make some choice of an occupation. It is readily apparent that the vast majority of the students felt very little pressure from any of these sources. The largest percents of responses consistently among male and female students across all three sources of potential pressure were in the "no pressure at all" category. The next largest percents of responses were in the "some pressure" category across all three sources. Some female students, 13.8 percent, felt "great pressure" from their parents and 12.7 percent felt "great pressure" from their teachers to make an occupational choice; only 3.7 percent felt "great pressure" from their counselors. Proportionately more male students, 13.9 percent, felt "great pressure" from their teachers than the 8.9 percent who felt "great pressure" from their parents or the 7.9 percent who felt such pressure from their counselors to make an occupational choice.

Correlations Among Sources of Influence, Approval, and Pressure: Table 37 shows the Pearson correlation coefficients and the N of each correlation between the sources of influence, approval, and pressure. For educational purposes, it must be recognized that a large sample size comparable to the one in these correlations produces statistically significant correlation indices when, in fact, the commonality between the two variables may be relatively small. The value of the squared correlation coefficient indicates the percent of variance held in common between the two variables.

The amount of influence of the mother was correlated with the amount of influence of the father ($r=.35$) and with the amount of influence of friends ($r=.34$), each of which was significant at the .001 level.

Statistically significant correlations, all at the .001 level, were found between the amount of influence and the approval of a student's occupational choice for each of the five sources of these variables, as might be expected. The highest correlation coefficients were obtained between the amount of influence and approval of teachers ($r=.58$) and of counselors ($r=.60$). These data are further interpreted and consistent with the analyses by the

TABLE 36. SOURCES OF PRESSURE ON STUDENTS TO MAKE AN OCCUPATIONAL CHOICE BY SEX

	Order and Sum of Ranks				TOTAL				RELATIVE PRESSURE											
									Great Pressure				Some Pressure				No Pressure			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	a	b	a	b	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
SOURCES OF PRESSURE:																				
Parents	1	46	1	193	79	21.9	282	78.1	7	8.9	39	13.8	32	40.5	115	40.8	40	50.6	128	45.4
Teachers	2	38	2	170	79	21.9	282	78.1	11	13.9	36	12.7	16	20.3	98	34.8	52	65.8	148	52.5
Counselors	3	27	3	58	76	22.0	270	78.0	6	7.9	10	3.7	15	19.7	38	14.1	55	72.4	222	82.2

[a] Order of Rank

[b] Sum of Ranks

TABLE 37. PEARSON CORRELATION COEFFICIENTS BETWEEN VARIABLES OF SOURCES OF INFLUENCE, APPROVAL, AND PRESSURE FOR STUDENTS' CHOICES OF OCCUPATIONS

		SOURCE OF INFLUENCE					SOURCE OF APPROVAL				
		Father	Mother	Friends	Teacher	Counselor	Father	Mother	Friends	Teacher	Counselor
SOURCE OF INFLUENCE:											
Father	r	-					.48[a]	.13[c]	.05	.01	.10
	N	-					209	221	225	223	216
Mother	r	.35[a]	-				.13[c]	.29[a]	.14[c]	.07	.06
	N	223	-				208	223	227	225	217
Friends	r	.10	.34[a]	.-			-.04	.06	.28[a]	.01	.09
	N	223	225	-			208	224	227	225	217
Teacher	r	.13[c]	.11	.16[b]	-		.13[c]	.14[c]	.16[b]	.58[a]	.25[a]
	N	223	225	225	-		208	223	227	227	218
Counselor	r	.14[c]	.16[b]	.26[a]	.32[a]	-	.02	.14[c]	.12[c]	.16[b]	.60[a]
	N	221	222	222	223	-	207	220	224	223	218
SOURCE OF PRESSURE:											
Parents	r	.12[c]	.19[b]	.06	.08	.10	.09	.05	.08	.08	-.03
	N	222	225	224	224	221	207	222	226	224	216
Teacher	r	.13[c]	.17[b]	.08	.33[a]	.17[c]	.04	.11	.17[b]	.32[a]	.10
	N	222	224	224	224	222	207	222	226	224	216
Counselor	r	.19[b]	.06	.15[c]	.15[b]	.27[a]	.06	-.10	.04	.05	.19[b]
	N	221	222	222	222	221	206	220	224	222	215

NOTE: r correlation coefficient; N number of matched cases in missing data correlation analysis

[a] Significant at the .001 level or below
[b] Significant at the .01 level or below
[c] Significant at the .05 level or below

cross-tabulations in Tables 34 through 36. The high correlation of teachers' influence with teachers' approval was based upon the great influence from teachers on the students' occupational choice. The high correlation of counselors' influence and approval, however, was based upon the high frequency of responses indicating little or no influence on students' choices and responses to the approval question that students did not know whether their counselors approved of their occupational choices.

Also, as might be expected, there were statistically significant correlations between the amount of influence and amount of pressure on occupational choice by teachers (r=.33) and by counselors (r=.27), both significant at the .001 level.

Analyses of Self Discrepancy Scores by Sources of Influence, Approval, and Pressure: The one-way ANOVA's of the self group discrepancy scores by the sources of relative influence, approval, and pressure showed there were three significant main effects due to these sources; a main effect due to influence of teachers, a main effect due to approval of teachers, and a main effect due to pressure from counselors. Table 38 was tabulated and included in this report to show the means of self group discrepancy scores in such a way that easy comparison of them could be made. The grand means of group discrepancy scores for each source of influence were very similar because the number in each analysis represented nearly the total sample of the study.

The only significant main effect on self group discrepancy scores by a source of influence on occupational choice was that influence from teachers. Where teachers were seen by the students as greatly influential on the students' occupational choices, the mean of the group discrepancy scores was 1.04, significantly lower than the mean of 1.72 where teachers were seen as having no influence at all on that choice. The only other source of influence which had an effect on discrepancy scores which approached significance (probability = .097) was the father. Where the father was greatly influential, the mean group discrepancy score was 1.71; where he was seen as somewhat influential, the mean was 1.11; and where he was not influential at all, the mean was higher at 1.44.

The single significant main effect on self group discrepancy scores by a source of approval was teachers. Mention must be made again of the very

TABLE 38. ONE-WAY ANALYSIS OF VARIANCE OF SELF GROUP DISCREPANCY SCORES BY SOURCES OF INFLUENCE, APPROVAL, AND PRESSURE ON OCCUPATIONAL CHOICE

SOURCE OF INFLUENCE	Grand Mean		RELATIVE INFLUENCE						Sig.* Level
			Greatly Influenced		Somewhat Influenced		Not Influenced At All		
	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	
Father	174	1.35	38	1.71	79	1.11	57	1.44	.097
Mother	190	1.35	61	1.59	81	1.25	48	1.21	.288
Friends	198	1.33	43	1.37	76	1.49	79	1.15	.341
Teacher	198	1.34	68	1.04	70	1.30	60	1.72	.028[a]
Counselor	192	1.36	30	1.23	45	1.31	117	1.42	.790

SOURCE OF APPROVAL	Grand Mean		STUDENTS' PERCEPTION OF APPROVAL						Sig.* Level
			Yes		No		Don't Know		
Father	183	1.34	156	1.38	3	2.33	24	.92	.163
Mother	196	1.34	176	1.37	7	1.86	13	.77	.223
Friends	200	1.33	145	1.43	9	1.22	46	1.02	.241
Teacher	198	1.34	122	1.13	7	1.57	69	1.68	.034[a]
Counselor	192	1.34	60	1.25	4	1.50	128	1.38	.818

SOURCE OF PRESSURE	Grand Mean		RELATIVE PRESSURE						Sig.* Level
			Great Pressure		Some Pressure		No Pressure		
Parents	316	1.37	43	1.30	126	1.35	147	1.41	.900
Teacher	315	1.38	37	1.49	102	1.17	175	1.47	.210
Counselor	303	1.38	14	2.43	44	1.23	245	1.34	.014[a]

* Level of Significance for One-Way ANOVA

[a] Significant differences at the .05 level or beyond

small N in the category of "no" for each of the five sources meaning that the students perceived that the sources did not approve of their occupational choices. The mean self group discrepancy score where teachers were perceived as approving of the student's occupational choice was 1.13; where they were perceived as either somewhat approving or the student did not know whether or not his teacher approved of his occupational choice, the means were 1.57 and 1.68 respectively.

While not statistically significant, some main effect on group discrepancy scores could be observed where the source of approval or lack of it is the father. The grand mean of the self discrepancy scores in the analysis of father as a source of approval was 1.34; where he did approve of the choice, the mean was 1.38; where he did not approve, the mean of those three students' scores was 2.33.

The single significant main effect on self group discrepancy scores due to a source of pressure to make an occupational choice was due to counselors. The grand mean of discrepancy scores of students responding to this question was 1.38 representing the scores of 315 students. However, the mean was 2.43 where counselors were seen as applying "great pressure" to students to make an occupational choice; 1.23 where they were seen as applying "some pressure," and 1.34 where they were seen as applying "no pressure at all" to make an occupational choice.

Table 39 shows the detail of the one-way ANOVA's of self level discrepancy scores by sources of influence, approval, and pressure related to students' occupational choices. The only significant main effect on self level discrepancy scores due to a source of influence was from counselors. The grand mean in this analysis was 1.03; where counselors were seen as greatly influential on the student's occupational choice, the mean was higher at 1.47; where they were seen as somewhat influential, the mean was .89; and where they were not influential at all, the mean was .97. This indicated that counselor influence accompanied higher self level discrepancy scores.

There were no significant main effects on self level discrepancy scores by any of the identified sources of approval, as perceived by the student, of his occupational choice. However, one mean level discrepancy score which was higher than all other mean scores in these analyses was 1.57 for the 7

TABLE 39. ONE-WAY ANALYSIS OF VARIANCE OF SELF LEVEL DISCREPANCY SCORES BY SOURCES OF INFLUENCE, APPROVAL, AND PRESSURE ON OCCUPATIONAL CHOICE

SOURCE OF INFLUENCE	Grand Mean		RELATIVE INFLUENCE						Sig.* Level
			Greatly Influenced		Somewhat Influenced		Not Influenced At All		
	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	
Father	174	1.05	38	1.21	79	1.01	57	.98	.415
Mother	190	1.02	61	1.00	81	1.07	48	.94	.696
Friends	198	1.02	43	1.07	76	1.11	79	.90	.331
Teacher	198	1.01	68	1.03	70	.99	60	1.02	.957
Counselor	192	1.03	30	1.47	45	.89	117	.97	.012[a]

SOURCE OF APPROVAL	Grand Mean		STUDENTS' PERCEPTION OF APPROVAL						Sig.* Level
			Yes		No		Don't Know		
	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	
Father	183	1.04	156	1.02	3	1.33	24	1.17	.649
Mother	196	1.02	176	1.00	7	1.00	13	1.23	.675
Friends	200	1.02	145	.99	9	1.22	46	1.04	.739
Teacher	198	1.01	122	.98	7	1.57	69	1.00	.235
Counselor	192	1.04	60	1.08	4	1.25	128	1.02	.799

SOURCE OF PRESSURE	Grand Mean		RELATIVE PRESSURE						Sig.* Level
			Great Pressure		Some Pressure		No Pressure		
	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	N	$\bar{X}$.	
Parents	316	.99	43	1.02	126	.99	147	.98	.960
Teacher	315	.99	37	1.11	103	1.14	175	.88	.044[a]
Counselor	303	1.00	14	1.29	44	1.23	245	.94	.065

* Level of Significance for One-Way ANOVA

[a] Significant differences at the .05 level or beyond

students who perceived they did not have the approval of their teachers of their occupational choice.

There was one significant main effect on self level discrepancy scores due to a source of pressure to make an occupational choice, that from teachers. Where teachers were seen as applying "great pressure" or "some pressure," the means of the self level discrepancy scores were 1.11 and 1.14 respectively. Where the teachers were seen as applying "no pressure at all," the mean of the level discrepancy scores was .88. A main effect due to pressure from counselors approached signficance with a probability of .065. Where counselors were seen as applying either "great" or "some pressure," the means of the level discrepancy scores were 1.29 and 1.23 respectively; and where counselors were seen as applying "no pressure at all," the mean was .94.

The remaining analyses of these data were two-way ANOVA's of self, father, and mother discrepancy scores of occupational group and level by the sources of influence, approval, and pressure. Those results which might be of educational significance will be discussed in the following sections devoted to those various sources.

Father as Source of Influence and Approval

Father was ranked as second by male students and fourth by female students of the five identified sources of influence on students' occupational choices. As previously reported, where the father was greatly influential, the mean of the self group discrepancy scores was higher (1.71) than where he was somewhat influential (1.11) or where he had no influence (1.44) on his son's or daughter's occupational choice. A similar pattern existed with self level discrepancy scores; where the father was greatly influential, the mean was higher (1.21) than where he was somewhat influential (1.01) or not at all influential (.98).

The results of the two-way ANOVA of group discrepancy scores by the relative influence of the father did not show any statistically significant main effects due to the influence of the father. The analysis did show, however, that the mean of the father group discrepancy scores, the comparison of the student's occupational choice with his father's occupation, was higher (1.54) where he was greatly influential than where he was somewhat

influential (1.22) or where he was not influential at all (1.38). A similar relationship was revealed by analysis of father level discrepancy scores.

Of the 210 students responding to the question asking whether their fathers approved of their occupational choices, no male student and only four female students indicated that they believed that their fathers did not approve of their choices. A relatively few students, 7 males and 22 females, did not know whether their fathers approved of their choices; all others, 85.4 percent of the male students and 84.0 percent of the female students, indicated that their fathers did approve of their occupational choices.

The two-way ANOVA's of group and level discrepancy scores of self, father, and mother by the father's approval or lack of it showed there was a significant main effect on group discrepancy scores due to the father's approval; however, there were only two students in this analysis who responded that they did not have his approval. The mean of the father group discrepancy scores for those who had their fathers' approval was 1.28; where it was not known if the father approved, the mean was 2.07; and for those two students who did not have their fathers' approval, the mean was 2.00. In the analysis of self group discrepancy scores, previously reported, the means of the group discrepancy scores of those students who had their fathers' approval and those who did not were 1.38 and 2.33 respectively. The differences among the three level discrepancy scores were not statistically significant and the N of the students who felt they had their fathers' approval and those who felt they did not have it were too disproportionate to allow for meaningful statistical analyses; 156 students had his approval, 3 did not.

Overall, the father was a relatively influential factor on a student's occupational choice, more so with male students than with female students.

Mother as Source of Influence and Approval

The mother was ranked first by female students and third by male students of the five sources of influence on their occupational choices. Over two thirds of the male students, 69.4 percent, and three fourths of the female students, 76.3 percent, indicated that their mothers were "greatly" or "somewhat" influential in their occupational choices. The one-way ANOVA's of self group and level discrepancy scores showed there were no significant

main effects due to the relative influence of the mother although Table 38 showed that where she was greatly influential, the mean of the self group discrepancy scores was 1.59; where she was somewhat influential, the mean was lower at 1.25; and where she was not influential, the mean was 1.21. Very small differences among means existed in the self level discrepancy analysis.

The two-way ANOVA of all three group discrepancy scores showed a main effect which approached significance (probability of .075) due to the influence of the mother on the student's occupational choice. The mean of the three group discrepancy scores (self, father, and mother) where the mother was greatly influential was 1.66; where she was somewhat influential, the mean was 1.32; and where she was not influential, the mean was 1.37. The grand mean of the group discrepancy scores in this analysis was 1.45.

The two-way ANOVA of level discrepancy scores showed no significant main effects due to the influence of the mother.

Almost all students reported having their mothers' approval of their occupational choices. Of the 174 females, only 5 reported they did not have her approval and 7 reported they did not know whether they had it; the rest, 93.1 percent, did have her approval. Of the total 51 male students in this analysis, 3 did not have their mothers' approval and 6 did not know whether she approved of their occupational choices.

Parents as Source of Pressure

About half of the students in this study, 50.6 percent of the male students and 45.4 percent of the female students, indicated that they felt no pressure from parents to make a choice of an occupation. Forty percent of each group, males and females, indicated they felt "some pressure" and only 8.9 percent of the males and 13.8 percent of the females felt "great pressure" from parents to make a decision about an occupation for themselves. Because nearly all students in the sample responded to these questions and the majority of the responses were the same, there was no significant main effect on any of the discrepancy scores due to pressure from parents.

Friends as Source of Influence and Approval

Of the five identified sources of influence on students' choices of occupations, female students ranked their closest friends as third and male students ranked them as fourth in influence. Eleven or 20.8 percent of the 53 male students and 39 or 22.4 percent of the 174 female students indicated that they were "greatly influenced" by their closest friends in making an occupational choice for themselves. The remaining students, both male and female, were about equally divided between the two other options in this question of "somewhat influenced" or "not influenced at all" by their closest friends.

Over half of the male students, 58.5 percent, and three fourths of the female students, 75.5 percent, indicated that their closest friends approved of their occupational choices. Only 6 male students and 4 female students indicated that their closest friends did not approve of their choices.

The results of the one-way ANOVA's of self group and level discrepancy scores showed there were no significant main effects due to the influence or the approval of their closest friends.

Teachers as Source of Influence, Approval, and Pressure

Teachers were ranked first by male students and second by female students of the five identified sources of influence on their occupational choices. The largest percents of responses in the "greatly influenced" category appeared in the question regarding teachers as a source of influence; 37.8 percent of the male students and 32.2 percent of the female students indicated that their teachers were greatly influential on their occupational choices. Similar percents of responses appeared in the "not influenced at all" category; 35.8 percent of the male students and 31.0 percent of the female students responded to that option. The remaining 26.4 percent of the male students and 36.8 percent of the female students responded that their teachers were "somewhat influential" in their choices of occupations.

Over half of the students, 56.7 percent of the male students and 60.9 percent of the female students, perceived that they had the approval of their teachers for their occupational choices. Only 7 students, 4 males and 3 females, felt they did not have their teachers' approval and the

remaining 19 male students, representing 35.8 percent of the male students, and 65 female students, representing 37.4 percent of the female students, did not know whether their teachers approved of their occupational choices.

Of the three probable sources of pressure felt by students to make some sort of occupational choice, 13.9 percent of the 38 male students and 12.7 percent of the 170 female students responding to this question indicated that they felt "great pressure" from their teachers to make a choice. An additional 20.3 percent of the male students and 34.8 percent of the female students indicated they felt "some pressure" from teachers and the remaining 65.8 percent of the male and 52.5 percent of the female students felt "no pressure at all" from teachers to make an occupational choice.

There was a high correlation ($r=.58$, significant at the .001 level) between the influence of teachers on occupational choice and the approval by teachers of a student's occupational choice.

Where teachers were named as greatly or somewhat influential on students' occupational choices and as approving of those those choice, the self group discrepancy scores were significantly smaller (both significant at the .05 level) than where teachers were named as not influential at all or not approving of the choice or the student did not know whether their teachers approved of their choice.

There appeared no significant differences of self level discrepancy scores due to influence or approval of teachers but there was a significant difference at the .05 level of mean self level discrepancy scores due to relative pressure from teachers felt by students to make an occupational choice. Where students felt "great pressure" from teachers, the mean level discrepancy score was 1.11; but where the student felt "no pressure" from teachers to make a choice, the mean level discrepancy score was .88. This reversal in relative size of mean discrepancy scores might indicate that students who felt pressure from teachers to make an occupational choice were not the same students who named teachers as influential on or approving of their occupational choices.

The two-way ANOVA of the three group discrepancy scores (self, father, mother) showed a significant main effect at the .01 level due to the relative amount of influence by teachers on their occupational choices.

The grand mean of the group discrepancy scores was 1.45; where teachers were greatly influential, the mean was lowest at 1.24; where they were somewhat influential, the mean was 1.37; and where they were not influential at all, the mean was highest at 1.73.

There was no significant main effect on group or level discrepancy scores due to the relative pressure felt by students from teachers to make an occupational choice.

Overall, students indicated that their teachers were influential on their occupational choices; for the most part, approved of those choices; and students who were more influenced by their teachers had smaller group and level discrepancy scores, especially self group and level discrepancy scores. This might be expected since all these students were vocational students, most of whom were seniors, and the teachers of these students, although not identified as to the subjects they taught but probably were the vocational teachers in whose classes the Questionnaires were administered. These teachers might be perceived by the students as being influential on and approving of the students' occupational choices when those teachers were, in reality, reinforcing the students' choices by virtue of their role as teachers of occupational skills and knowledges already chosen by the students.

Counselor as Source of Influence, Approval, and Pressure

Counselors were ranked fifth of the five probable sources of influence on occupational choice by both male and female students. Proportionately fewer students responded to the option of "greatly influenced" by counselors than to that option for any of the other four sources; 15.7 percent of the male students and 16.1 percent of the female students so responded. And, conversely, proportionately more students responded to the option of "not influenced at all" by counselors than to that option for any of the other sources; 51.0 percent of the male students and 61.3 percent of the female students indicated they were not influenced by counselors in their occupational choices.

The same relative distribution of responses appeared in the question regarding the student's perception of his counselor's approval of his

occupational choice. Fewer students perceived their counselors' approval than that of other sources of approval and more students responded that they did not know whether their counselor approved of their occupational choice than responded that way to the other sources. About a third of the students, 36.5 percent of the males and 31.1 percent of the females, perceived they had their counselors' approval while 55.8 percent of the males and 68.3 percent of the females did not know whether their counselors approved of their choices.

Counselors ranked lowest of the three sources of pressure in applying pressure to students to make a choice and, conversely ranked highest in applying no pressure to make a choice. Of the 76 male students, 72.4 percent felt no pressure from counselors and 82.2 percent of the 270 female students felt no pressure.

The high correlation (r=.60, significant at the .001 level) between influence of counselors on students' occupational choices and approval by them of those choices is, in reality, a correlation between little or no influence on occupational choice and students' responses that they did not know whether their counselors approved of their choices.

The one-way ANOVA's of discrepancy scores showed that there was a significant main effect at the .05 level on self group discrepancy scores due to pressure felt by students from counselors to make an occupational choice. The 14 students who felt "great pressure" from counselors had a mean group discrepancy score of 2.43; the students who felt only "some pressure" or "no pressure at all" from counselors had lower mean group discrepancy scores of 1.23 and 1.34 respectively.

The one-way ANOVA of level discrepancy scores showed that there was a significant main effect at the .05 level on level discrepancy scores due to the relative influence of counselors on occupational choice. Where counselors were greatly influential, the mean level discrepancy score was highest at 1.47; where counselors were somewhat influential or not influential at all, the mean level discrepancy scores were significantly lower at .89 and .97 respectively.

The two-way ANOVA's of group and level discrepancy scores of self, father, and mother showed a significant main effect on level discrepancy scores due

to the relative influence of counselors on students' occupational choices. The grand mean of the three group discrepancy scores was 1.23; where counselors were greatly influential, the mean was 1.42; where they were somewhat influential or not influential at all, the means were lower at 1.09 and 1.19 respectively.

Similar results were obtained in the two-way ANOVA's of group and level discrepancy scores by relative pressure from counselors to make an occupational choice of some sort. In the analyses of both group and level discrepancy scores, there were significant main effects due to the relative pressure from counselors. Where counselors were seen as exerting "great pressure" on students to make a choice, the mean group and level discrepancy scores were significantly higher than where counselors were seen as exerting "some" or "no pressure at all" to make such a choice.

Summary

Overall, teachers and parents were more influential on students' occupational choices than were friends or counselors. The majority of students felt they had the approval of parents, teachers, and friends of their occupational choice. Relatively few students felt great pressure from any of the three identified sources to make an occupational choice; but where some pressure was felt, more of it came from parents, a lesser amount of pressure came from teachers, and the least amount of pressure came from counselors.

Correlations between sources of influence, approval, and pressure showed that there were statistically significant correlations between relative influence and approval of each of the five identified sources but no other correlations were of a magnitude to be educationally significant.

Analyses of group discrepancy scores revealed that where teachers were named as greatly influential on occupational choice and approved of that choice, group discrepancy scores were significantly lower than where teachers were named as not influential at all and students did not know whether their teachers approved of their occupational choices. Of the three sources of pressure on students to make an occupational choice, those students who named counselors as a source of great pressure had a higher mean self group discrepancy score than students who felt only some or no pressure from counselors.

The level discrepancy scores were affected by the influence of counselors on occupational choice; where counselors were greatly influential, the mean level discrepancy score was significantly higher than where counselors were only somewhat influential or not influential at all.

While not statistically significant, the mean level discrepancy score where teachers were said not to approve of the students' occupational choices was much higher than any other mean level discrepancy score across all five sources of approval and all three categories of approval of "yes," "no," and "don't know."

The relative proportion and relationship between self group and level discrepancy scores were duplicated in the analyses of the two other discrepancy scores; father and mother. Where teachers and parents were influential, the mean scores were generally lower; where counselors were influential, the mean scores were higher.

STUDENTS' FEELINGS ABOUT SELECTED OCCUPATIONS

Students were asked how they felt about a list of 19 selected occupations by giving each occupation a score of relative prestige or attractiveness reflecting their feelings about each occupation. The purpose of this series of questions was to determine how students perceived the 19 occupations and how they ranked them on a five-point scale of desirability as occupations in general but not how attractive that occupation was to them as a possible career for themselves. The wording of the rating scale was:

Mark 5 if you feel this is highly respected, attractive work
Mark 4 if you feel this is important work
Mark 3 if you feel this is useful work
Mark 2 if you feel this is unattractive work
Mark 1 if you feel this is very unattractive work

All students in the sample were asked to respond to these 19 questions and the total number of responses to each question ranged from 349 to 357 of the possible 366 respondents.

Arithmetic means were computed on the responses to each question based upon the total responses from all students. Separate arithmetic means were also computed on the responses by male and female students. The three sets

of mean scores (for the sample as a whole, for male students, and for female students) were then rank-ordered and numbered based upon the means. Table 40 shows the occupations listed in order of rank of the overall mean for all respondents to each question. The table also shows the rank and mean for each occupation by responses from male students and the same data from female students.

The similarity of the rank order of the total sample and of the female students was due to the high proportion of female students in the sample, about 78 percent female and 22 percent male.

For the sample as a whole, the higher-level occupations as described by Roe were ranked above those at a lower level. There were no Level 1, Unskilled, occupations included in the list nor were there any occupations from Group 2, Business Contacts.

Both male and female students were agreed on the first- and second-ranked occupations; first-ranked was "physician" and second-ranked was "attorney." They were also agreed on the last-ranked occupation, that of "waitress."

In the remaining ratings it was apparent that the students included in their judgment of these occupations their own personal occupational preferences. While the female students ranked "secretary" as fifth highest, the male students ranked it as sixteenth. The occupation of "mechanic" had the reverse rankings, fifth by male students and a tie for sixteenth with "construction worker" by female students.

"Nurse" was higher ranked by females than by males, third by females and seventh by males. "Computer programmer" was ranked fourth by males and ninth by females. Females ranked "teacher" as eighth and the males ranked it as fourteenth.

The occupations which received very different rankings by male and female students were those occupations generally associated with one sex or the other. The female students ranked higher than did the male students those occupations generally filled by females and frequently named by the female students as their occupational preferences. The male students tended to do the same thing with occupations generally filled by males.

No further analyses of these data were planned or computed.

TABLE 40. MEAN SCORES AND RANK ORDER OF RATINGS OF SELECTED OCCUPATIONS BY ALL STUDENTS AND BY SEX

Occupation	Roe's Matrix		All Students		Male		Female	
	Group	Level	Rank	Mean	Rank	Mean	Rank	Mean
Physician	6	6	1	4.33	1	4.19	1	4.37
Attorney	7	6	2	4.19	2	3.99	2	4.25
Nurse	6	5	3	3.96	7	3.47	3	4.10
Detective/ Policeman	1	4	4	3.83	6	3.58	4	3.90
Architect	8	5	5	3.81	3	3.96	6	3.77
Senator/ Representative	3	6	6	3.69	9.5	3.42	7	3.76
Secretary	3	4	7	3.68	16	3.00	5	3.86
Computer Programmer	3	4	8	3.64	4	3.70	9	3.62
Teacher	7	5	9	3.60	14	3.29	8	3.68
Accountant	3	4	10	3.55	11	3.39	10	3.59
Radio, TV Announcer	7	4	11	3.39	9.5	3.42	11	3.38
Career Military	1	4	12.5	3.27	12.5	3.36	14	3.24
Farmer	5	4	12.5	3.27	12.5	3.36	13	3.25
City Manager	3	5	14	3.23	15	3.08	12	3.28
Mechanic	4	3	15	3.14	5	3.62	16.5	3.00
Construction Worker	4	2	16	3.10	8	3.46	16.5	3.00
Store Sales Person	3	3	17	2.99	17	2.99	18	2.99
Dressmaker	1	2	18	2.97	18	2.45	15	3.12
Waitress	1	2	19	2.32	19	2.28	19	2.33

A measure of a student's occupational information was computed from his answers to a portion of the Parnes' Occupational Information Test (OIT) adopted for use in this study. The test consisted of seven questions, each presented in two parts. Students were asked first, to select from three options the best description of the duties of a given occupation and, second, to select from four options the amount of regular schooling workers in the given occupation usually have. The seven occupations included in the adopted portion of the OIT were hospital orderly, machinist, acetylene welder, stationary engineer, statistical clerk, fork lift operator, and economist. The three occupations which were omitted from the Parnes' OIT were medical illustrator, draftsman, and social worker.

Computation of Composite OIT Score

The scoring procedure used by Parnes was adopted for computing a composite OIT score for each student. The correct identification in the first part of each question relative to the duties of the given occupation was given the score of 2; incorrect or missing responses were given the score of 0. Only if the response to the first part of the question was correct was the second part scored.

In scoring the second part of each question, relative to the amount of schooling, two responses, one preferred and one alternate, were acceptable in four of the seven questions. The preferred response was given the score of 2 and the alternate response was given the score of 1; incorrect or missing responses were given the score of 0. The dual scoring of this component was necessary to account for the range of schooling of workers in these occupations. In general older workers in these occupations had less schooling than was being required of younger entering workers. In every instance of dual scoring, the preferred response was reflective of the majority of workers in the given occupation who were older and, in these four instances, had less than a high school diploma; the alternate response was reflective of the newer workers who were younger and who had a high school diploma. Parnes reported that data from the 1960 Census provided the standards for scoring this component relative to the highest year of schooling attained by workers in the given occupations.

The maximum score possible on this test was 28; the actual range was from 0 to 24. To facilitate analyses and interpretation of these data, the students' computed scores were divided into approximate quartiles. The quartiles represented the following score ranges and proportion of the sample:

Quartile	Score Range	N	% of Total
Lowest	0 - 4	87	23.8
Second	5 - 9	99	27.1
Third	10 - 13	96	26.2
Highest	14 - 24	84	22.9
TOTAL		366	100.0

Analysis of OIT Scores by Curriculum, Type of Class, and Sex

Table 41 presents the cross-tabulations of the OIT scores in quartiles by curriculum, type of class, and sex. The Chi-square analyses made of each of these cross-tabulations showed there was a statistically significant interdependence at the .001 level between OIT quartile scores and each of the three variables in these analyses. The Chi-square values and degrees of freedom are indicated below each cross-tabulation in Table 41.

The cross-tabulation by curriculum showed that Industrial students scored the highest and HERO students scored the lowest on the OIT. Over half of the Industrial students, 51.9 percent scored in the highest quartile which was more than twice the proportion of Distributive or Office students and almost nine times the proportion of HERO students who scored in that quartile. Conversely, the largest proportion of HERO students, 43.4 percent, scored in the lowest quartile representing the largest group of any curriculum scoring in the lowest quartile.

The cross-tabulation by type of class showed that the largest group who scored in the highest quartile, 29.1 percent, were cooperative students. The 32 students in junior/senior related classes represented the largest percent scoring in the lowest quartile, 50.0 percent, and the smallest percent scoring in the highest quartile, 6.3 percent. The senior level, not cooperative class students scored in relative proportion similar to that of the cooperative students.

TABLE 41. OCCUPATIONAL INFORMATION TEST SCORES (IN QUARTILES) BY CURRICULUM, BY TYPE OF CLASS, AND BY SEX

	TOTAL		OCCUPATIONAL INFORMATION TEST SCORES							
			Lowest Quartile		Second Quartile		Third Quartile		Highest Quartile	
	N	%	N	%	N	%	N	%	N	%
CURRICULUM:										
Dist.	63	17.2	15	23.8	13	20.7	21	33.3	14	22.2
HERO	83	22.7	36	43.4	26	31.3	16	19.3	5	6.0
Office	168	45.9	31	18.5	51	30.3	48	28.6	38	22.6
Indus.	52	14.2	5	9.6	9	17.3	11	21.2	27	51.9
TOTAL	366	100.0	87	(23.8)	99	(27.0)	96	(26.2)	84	(23.0)
Chi-square = 56.83, 9 degrees of freedom, Sig. at .001 level										
TYPE OF CLASS:										
Coop.	199	54.4	42	21.1	49	24.7	50	25.1	58	29.1
Sr. Level/ Not Coop	135	36.9	29	21.5	40	29.6	42	31.1	24	17.8
Jr./Sr. Related	32	8.7	16	50.0	10	31.2	4	12.5	2	6.3
TOTAL	366	100.0	87	(23.8)	99	(27.0)	96	(26.2)	84	(23.0)
Chi-square = 23.54, 6 degrees of freedom, Sig. at .001 level										
SEX:										
Male	81	22.1	11	13.6	15	18.5	17	21.0	38	46.9
Female	285	77.9	76	26.7	84	29.5	79	27.7	46	16.1
TOTAL	366	100.0	87	(23.8)	99	(27.0)	96	(26.2)	84	(23.0)
Chi-square = 34.46, 3 degrees of freedom, Sig. at .001 level										

The cross-tabulation by sex showed that male students had nearly three times the proportion of students who scored in the highest quartile as female students; 46.9 percent of the male students compared to 16.1 percent of the female students scored in the highest quartile. Of the 285 female students, 26.7 percent scored in the lowest quartile compared to 13.6 percent of the 81 male students who scored in that quartile.

These significant relationships could be expected because the Parnes' OIT was developed for male respondents and four of the seven occupations named in the adopted portion of the OIT were occupations in the Technology group, the same group which contained the majority of occupations named by the majority of male students in this study as their occupational choices.

Cross-tabulations were also made of the OIT scores in quartiles by the occupational groups and levels of the father's occupation and of the mother's occupation. The distribution of the OIT scores was essentially a chance distribution independent of the father's or mother's occupational group or level.

Analysis of OIT Scores and Students' Choices of Occupations

Tables 42A and 42B show the distribution of the OIT scores in quartiles by the group and by the level of the student's occupational choice. Nearly half of the students chose an occupation in the Organization group and the percent distribution of students in the first three OIT quartiles were similar to that proportion.

There were three groups of students within the lowest and highest quartiles who selected occupational groups different in proportion from the distribution as a whole. Service occupations had been selected by 19.9 percent of the total distribution but accounted for 30.8 percent of those students who scored in the lowest quartile of the OIT. Technology occupations represented 15.3 percent of the total distribution of students' choices of occupational group but accounted for only 5.8 percent of the students who scored in the lowest quartile and 29.5 percent of those who scored in the highest quartile of the OIT. These findings are very likely reflective of the findings relative to curriculum--Industrial students who scored the highest on the OIT chose primarily Technology occupations and HERO students who scored the lowest on the OIT chose primarily Service occupations.

TABLE 42A. STUDENT'S CHOICE OF OCCUPATIONAL GROUP BY QUARTILE SCORE ON OCCUPATIONAL INFORMATION TEST

	TOTAL		OCCUPATIONAL INFORMATION TEST SCORE							
			Lowest Quartile		Second Quartile		Third Quartile		Highest Quartile	
	N	%	N	%	N	%	N	%	N	%
CHOICE OF OCCUPATIONAL GROUP:										
Service	43	19.9	16	30.8	14	22.6	5	10.4	8	14.8
Business Contact	2	0.9	-	--	-	--	1	2.1	1	1.9
Organi-zation	105	48.6	25	48.1	37	59.7	24	50.0	19	35.2
Technology	33	15.3	3	5.8	6	9.7	8	16.7	16	29.5
Outdoor	1	0.5	-	--	-	--	-	--	1	1.9
Science	12	5.6	5	9.6	2	3.2	4	8.3	1	1.9
General Cultural	10	4.6	1	1.9	1	1.6	4	8.3	4	7.4
Arts/Enter-tainment	10	4.6	2	3.8	2	3.2	2	4.2	4	7.4
TOTAL	216	100.0	52	100.0	62	100.0	48	100.0	54	100.0

TABLE 42B. STUDENT'S CHOICE OF OCCUPATIONAL LEVEL BY QUARTILE SCORE ON OCCUPATIONAL INFORMATION TEST

CHOICE OF OCCUPATIONAL LEVEL:										
Unskilled	-	--	-	--	-	--	-	--	-	--
Semiskilled	31	14.4	12	23.1	9	14.5	4	8.3	6	11.1
Skilled	59	27.3	11	21.2	19	30.6	9	18.8	20	37.0
Semiprof./ Sm. Bus.	86	39.8	23	44.2	25	40.4	23	47.9	15	27.8
Prof./Mgr. 2	35	16.2	4	7.7	9	14.5	10	20.8	12	22.2
Prof./Mgr. 1	5	2.3	2	3.8	-	--	2	4.2	1	1.9
TOTAL	216	100.0	52	100.0	62	100.0	48	100.0	54	100.0

Table 42B shows the distribution of OIT scores in quartiles by the student's choice of occupational level. Overall, the largest group selected Semiprofessional level occupations and this cross-tabulation shows that those students were distributed proportionately across the first three OIT quartiles. The students who scored in the highest quartile chose occupational levels in a proportional distribution different from that of the entire subsample of 216 students. While 27.3 percent of the total distribution chose Skilled occupations and another 39.8 percent chose Semiprofessional occupations, those students who scored in the highest quartile made their choices of occupational level in about the reverse proportions; 37.0 percent of them chose Skilled occupations and 27.8 percent chose Semiprofessional occupations. The percents in the remainder of this matrix reflected distributions across the four OIT quartiles which were very similar to that of the subsample as a whole.

Analysis of OIT Scores and Sources of Helpful Occupational Information

Table 43 shows the distribution of students who scored in the highest and lowest OIT quartiles by their responses to the series of questions regarding the sources of helpful information for their occupation choices. The students in these two quartiles were selected for this analysis since their OIT scores reflected the most discriminating scores. Sums and order of ranks for the highest quartile and for the lowest quartile were computed to provide an index to the relative helpfulness of the ten identified sources of occupational information by OIT scores. The order of ranks for both the highest and lowest quartiles of OIT scores reflected essentially the same order in which the sources ranked irrespective of any other variables (see Table 32). This indicated that there was no significant relationship between sources of information and high or low OIT scores. Because the male students accounted for the majority of those who scored in the highest quartile and female students accounted for the majority of those who scored in the lowest quartile, the order of ranks for the highest and lowest quartiles was reflective of the order of ranks by sex as reported in Table 33.

TABLE 43. SOURCES OF HELPFUL INFORMATION FOR STUDENT'S OCCUPATIONAL CHOICE BY STUDENTS SCORING IN THE HIGHEST AND LOWEST QUARTILES OF THE OCCUPATIONAL INFORMATION TEST

SOURCE	Quartile	Order and Sum of Ranks: Highest a	Highest b	Lowest a	Lowest b	TOTAL* N	RELATIVE HELPFULNESS: Most Helpful N	Most Helpful %	Second Most Helpful N	Second Most Helpful %	Third Most Helpful N	Third Most Helpful %	Least Helpful N
Father	Highest	3	45			21	7	33.3	10	47.6	4	19.1	2
	Lowest			4	33	16	4	25.0	9	56.3	3	18.7	4
Mother	Highest	4	38			18	6	33.3	8	44.5	4	22.2	2
	Lowest			1	68	32	14	43.8	8	25.0	10	31.2	2
Other Relative	Highest	8	17			10	1	10.0	5	50.0	4	40.0	4
	Lowest			9	6	3	-	--	3.	100.0	-	--	6
Friends	Highest	5.5	25			14	3	21.4	5	35.7	6	42.9	3
	Lowest			5	22	14	2	14.3	4	28.6	8	57.1	4
Teacher	Highest	1	66			28	16	57.2	6	21.4	6	21.4	3
	Lowest			3	44	20	10	50.0	4	20.0	6	30.0	3
Counselor	Highest	9	14			9	2	22.2	1	11.1	6	66.7	12
	Lowest			9	6	5	-	--	1	20.0	4	80.0	8
Workers	Highest	2	56			26	12	46.2	6	23.1	8	30.7	2
	Lowest			2	48	21	11	52.4	5	23.8	5	23.8	2
Radio, TV	Highest	7	18			10	1	10.0	6	60.0	3	30.0	14
	Lowest			9	6	4	-	--	2	50.0	2	50.0	8
Books/Magazines	Highest	5.5	25			11	3	27.3	3	27.3	5	45.4	4
	Lowest			6	19	8	4	50.0	3	37.5	1	12.5	-
Pamphlets	Highest	10	12			8	1	12.5	2	25.0	5	62.5	4
	Lowest			7	17	8	4	50.0	1	12.5	3	37.5	3

* TOTAL N of helpful sources; "Least Helpful" omitted.

Pearson product-moment correlations were computed between individual composite OIT scores and the relative helpfulness of the ten identified sources of occupational information and essentially chance relationships were shown to exist.

Because of the recognized limitations of this measure of students' occupational information for this study, no further analyses were made of the OIT composite scores.

CHAPTER 4

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

To be of service to students who are perpetually in one stage or another of their decision-making process relative to the choice of an occupation for themselves, educators must have a better awareness of and sensitivity to those factors which influence that process, know how influential those factors are, and to what extent those factors are interrelated. Educators should be most sensitive to the relative influence of the school-based factors and the real impact which they, as educators, have on students' occupational choice-making. Serious attention is being given to career education as a concept devoted to sharpening a student's awareness and broadening his knowledge of the world of work for the primary purpose of providing him with more information about career choice and mobility and more career options.

Purpose of This Study

The purpose of this study was the exploration of some of the factors involved in a high school student's choice of an occupation for himself or herself, the relative influence of those factors on the student, and the interrelatedness of those factors. Related literature provided an initial list of factors associated with a student's occupational choice-making process. Some additional factors also thought to be associated with that process were included in this study for further investigation.

Research Procedures

Six major groups of variables were identified for study in this research: 1) selected personal characteristics of each student and his family; 2) the student's occupational preferences and choice, if he had made a choice; 3) sources of helpful occupational information; 4) sources of influence, approval, and pressure felt by the student relative to making his choice of an occupation; 5) how the student felt about selected occupations; and 6) a computed measure of the student's amount of occupational information.

The Questionnaire: All data for the study were gathered from the students through the use of a Questionnaire. The Questionnaire, in primarily multiple-choice format, was developed, field tested in three public senior high schools in Illinois, revised, and submitted for the approval of the Research Council of the Wichita Public Schools, Wichita, Kansas. Approval of the Questionnaire and for conducting the research in the Wichita Public senior high schools was granted by the Research Council in April, 1971. The Questionnaire was administered in May, 1971, to selected classes of vocational education programs by the teachers of those classes. The Questionnaire has been reproduced in the appendix and shows the frequency distribution of responses for each question.

The Sample: Students enrolled in senior high school vocational education programs, primarily senior-level students, were selected as the subjects of this study. Through the kind cooperation and acsistance of the faculty, staff, and students of the Wichita Public Schools, data were collected from 366 Wichita senior high school students who were enrolled in vocational education programs in the areas of Distributive Occupations (Distributive), Home Economics Related Occupations (HERO), Office Occupations (Office), and Industrial Occupations (Industrial).

Classification of Occupations

Seven questions which asked students to identify specific occupations were presented in open-ended format. It was then necessary to adopt a system for coding the occupations named. The two-dimensional Occupational Classification scheme developed by Anne Roe and her associates was selected as this system provided for the coding of each occupation into one of eight occupational groups based upon the primary focus of activity of the occupation and into one of six occupational levels based upon the degree of personal autonomy and the level of skill and training required for that occupation. The eight groups are 1) Service, 2) Business Contact, 3) Organization, 4) Technology, 5) Outdoor, 6) Science, 7) General Cultural, and 8) Arts and Entertainment. The six levels are 1) Unskilled, 2) Semiskilled, 3) Skilled, 4) Semiprofessional and Small Business, referred to as Semiprofessional, 5) Professional and Managerial 2, and 6) Professional and Managerial 1.

The visual representation of this classification system is a cylinder with the eight occupational groups arranged horizontally around the circumference and the six occupational levels arranged vertically thus creating a 48-cell matrix showing the closer relationship of occupations in contiguous cells and the lesser relationship of occupations in noncontiguous cells. This theoretical arrangement of groups shows the similarity of occupations in Group 1, Service, and those in Group 8, Arts and Entertainment.

This classification scheme also provided the basis for analyses of similarities or differences between various occupations named by individual students. The number of steps between the cells in this matrix provided the basis for the computation of discrepancy scores of both occupational group and of level which, in turn, were the basis for much of the analyses reported herein.

SUMMARY OF FINDINGS

The statistical analyses for this study were accomplished by computerized packaged programs designed especially for social science and educational research analyses.

Much of the analyses of this study are reported by the variables of curriculum, type of class, and sex of student as these are categories frequently used to describe and compare high school students generally and vocational students in particular. The percents reported are rounded or approximate. The number of students will vary from one analysis to another because missing data from a particular student on any of the variables in a given analysis eliminated that student from that particular analysis.

Separate sections of this chapter are devoted to the summary of findings for each variable. A summary statement concludes nearly every summary section.

Definition of Type of Class

The class in which the Questionnaire was administered was coded as one of the three types of classes included in this study: 1) cooperative, 2) senior level, not cooperative, and 3) junior/senior vocationally related.

Cooperative classes provided students with both in-school activities and concurrent supervised part-time employment in business and industry. Senior level, not cooperative, classes refers to classes of students who were full-time, in-school students. While some of these students may have been employed part-time, the employment was not supervised by the school and no data were collected concerning their employment. The third type of class included those 32 junior and senior students in the sample who were in vocationally related classes only.

Overview of the Sample

The 366 students included in the sample for this study were enrolled in vocational education programs in Wichita's six public high schools, the Vocational-Technical Center, the Community Education Center, and the Schweiter Technical Building. There were 81 (22 percent) male students and 285 (78 percent) female students in the sample ranging in age from 15 through 20. Over half of the sample, 199 (54 percent), were in cooperative education programs, 135 (37 percent) were enrolled in senior level, not cooperative classes, and the remaining 32 (9 percent) were enrolled in junior/senior related classes. By curriculum 63 (17 percent) were Distributive students, 83 (23 percent) were HERO students, 168 (46 percent) were Office students, and 52 (14 percent) were Industrial students. All of the Office students were female, all of the Industrial students were male, all but three of the 83 HERO students were female, and 26 (41 percent) of the Distributive students were male and the remaining 37 (59 percent) were female. Because of this distribution of male and female students in the various curricula, the sex of the students can often be inferred from a given curriculum with the exception of the Distributive curriculum. All of the students in the sample were juniors and seniors; 36 (10 percent) and 330 (90 percent) respectively.

Students' Grades: By curriculum, the highest grades reported were by Office students; about half made mostly A's and B's and about half made mostly B's and C's. Industrial students were next highest with one fifth who made A's and B's, one half who made B's and C's and one fourth who made C's and D's. Distributive and HERO students reported their grades in similar proportions

to each other; one eighth made A's and B's, one half made B's and C's, and one third made C's and D's. By sex, twice the proportion of female students (34 percent) as male students (17 percent) made A's and B's and about half of each group reported making B's and C's. The balance of each group made C's and D's and 3 students reported making mostly D's and F's.

> The students' grades were slightly above average with Office students reporting the highest grades.

Students' Opinion of "School:" Students were asked to select the one-word opinion which best described their feeling about "school in general" from the options of "exciting," "interesting," "tiresome," and "maddening." Overall, nearly half, 48 percent, responded to "interesting," 38 percent to "tiresome," 9 percent to "maddening," and 5 percent to "exciting." Industrial students seemed more satisfied with school than were the students in the other curricula. Nearly two thirds of them, 63 percent, responded to the opinion of "interesting." Distributive students seemed the least satisfied with no responses to "exciting," 38 percent responded to "interesting," which was the smallest percent in that option, and 13 percent responded to "maddening," the highest percent in that option, and nearly half of them selected the option "tiresome." HERO and Office students had very similar percent distributions with a few responses to "exciting," nearly half responded to "interesting," and a third responded to "tiresome."

By type of class, the junior/senior related students were more enthusiastic about school than the cooperative or senior level, not cooperative, students. There were only small differences in the distributions of responses by sex.

> As a whole the students had a positive opinion of school in general but differences between students in different curricula revealed that Industrial students were more enthusiastic and Distributive students were less enthusiastic about school than were the students in the other two curricula.

Family Characteristics

Fathers' Occupations: Of the total sample of 366 students 296 (81 percent) responded to the question asking for the name of their father's occupation. These responses were coded by the Roe scheme and 61 percent

were classified in the Technology group and 20 percent were in the Organization group. By occupational level, 35 percent were Skilled occupations, 29 percent were Semiprofessional occupations, and 26 percent were Semiskilled occupations. There were 6 fathers (2 percent) employed at the Unskilled level and only 1 father (.3 percent) employed at the Professional/Managerial 1 level. The matrix cell with the highest number of occupations was the Skilled level of the Technology occupations which accounted for 27 percent of all fathers' occupations. This particular classification included the occupations most frequently named by students such as "inspectors" and "machinists."

> Students' fathers were employed primarily in Technology occupations with the largest group employed at the Skilled level.

Mothers' Occupations: Just under half of the total sample, 176 (48 percent) indicated an occupation outside the home for their mothers. Almost half of those occupations were Organization occupations, 22 percent were Service occupations, and 16 percent were Technology occupations. By level, 32 percent were Semiskilled, 30 percent were Skilled, and 21 percent were Semiprofessional occupations. Two cells in the Organization group, Skilled and Semiprofessional, accounted for 38 percent of the occupations classified in this entire matrix. The majority of specific occupations named in these two cells were "retail sales clerk," "stenographer," or "secretary." No student's mother was employed at the Professional/Managerial 1 level but 9 percent were employed at the Unskilled level.

> Half the students had mothers employed outside the home in primarily Organization occupations and at the Semiskilled and Skilled levels.

Parents' Estimated Income: When asked to estimate their parents' income, 33 percent of the sample indicated they did not know what it was; about 20 percent estimated it to be less than $8,000 per year; 28 percent estimated it to be between $8,100 and $12,000 per year, and the remaining 19 percent estimated it to be over $12,100 per year.

Parents' Educational Attainment: Approximately one third of the fathers and one third of the mothers, (38 percent and 32 percent respectively) reportedly did not finish high school. More mothers (43 percent) ended their

schooling with a high school diploma than did fathers (28 percent). Fathers who entered college were more likely to finish than were mothers who entered college as indicated by the 13 percent of the fathers compared to 7 percent of the mothers who graduated from college.

Family Geographic Mobility: Students were asked how many times during their lifetime their family had moved into a different city or town. Half of the sample had never moved which indicated they were lifelong residents of Wichita. About one fifth, 18 percent, had moved one time; 11 percent had moved two times; then the percents are much smaller until the option of "5 or more times" moved which contained 12 percent of the responses. It was thought that the location of a large United States Air Force Base in the Wichita area might have contributed to greater family geographic mobility but only three students indicated their fathers were in the military.

The amount of family geographic mobility was associated with the occupational level of the father. There was less family geographic mobility for the families with fathers employed at the lower occupational levels. As the occupational level increased, so did the amount of family geographic mobility until the two Professional and Managerial levels were reached in which case the trend was reversed as one third of the families in these categories had always lived in Wichita and one fifth had moved only once.

> Half the students were life-long residents of Wichita, especially those whose fathers were employed at the lower occupational levels. As the level of the father's employment rose, so did the family geographic mobility with the exception of those at the Professional and Managerial levels who were primarily geographically stationary

Students' Plans for Schooling After High School: Students were asked if they planned to go on to school after high school. Just under half (46 percent) indicated they did plan such schooling, 23 percent said they did not, and the remaining 31 percent indicated they were not sure of their post-high school plans for schooling. Analysis by curriculum indicated that Office students were more sure of their plans and 56 percent of them planned to go on to school. Distributive and Industrial students were less sure with 37 percent of each group in the "not sure" category and slightly less than half of each group indicated they did plan further schooling. Fewer HERO

students (25 percent) than students in the other curricula planned further schooling and more of them (42 percent) were not sure of their plans.

About half of the A and B and half of the B and C students planned to continue their education. The proportion dropped to one fourth of the C and D students who planned to go on to school but the differences between these grade groups were between the categories of "yes" and "not sure" rather than between "yes" and "no." In fact, 44 percent of the C and D students responded that they were not sure of their plans which indicated they were still giving consideration to further education.

Analysis by level of the father's occupation showed that the lower the father's occupational level, the more unsure students were of their plans for further education as only a fourth of the students whose fathers were employed at the Unskilled and Semiskilled levels indicated they had no plans for further education while 42 percent of them were not sure about going on to school indicating they had not ruled out further education for themselves.

> Students' plans for continued education after high school were related to their grades and to their father's occupational level. About half of the students in the sample planned to continue their education and a third were not sure about going on to school. Students with higher grades and whose fathers were employed at higher occupational levels had more definite plans for further education than other students. Fewer HERO students planned to go on to school and more of them were "not sure" of their plans than students in other curricula.

Choice of Post-High School Institutions: Students who indicated they planned to go on to school or who were not sure of such plans were asked to indicate the type of institution they planned to or might attend. About half of these students planned to attend a 4-year college or university, a fourth planned to attend a public area vocational-technical school, and the remaining fourth were nearly equally divided between plans to attend a public junior college or a nonpublic business or technical school. The largest percents of Office and Distributive students, over half of each group, planned to attend a 4-year institution and the largest percents of Industrial and HERO students, about 40 percent of each group, planned to attend public area vocational-technical schools. By students' grades, those students who

planned to attend a 4-year institution accounted for 71 percent of the A and B students and 50 percent of the B and C students. The largest group of C and D students, 40 percent, planned to attend a public area vocational-technical school.

The higher the father's occupational level, the more likely the student was to plan to attend a 4-year institution; and the lower the father's occupational level, the more likely the student was to plan to attend an area vocational-technical school.

> The students' choices of a post-high school institution were related to their curriculum, their grades, and the level of their fathers' occupations. A 4-year college or university was named by half the students as their choice of a post-high school institution and those students were, primarily, those with higher grades, whose fathers' occupations were at higher levels, and more often who were enrolled in Office or Distributive programs. Students enrolled in Industrial and HERO programs who had average and just above average grades and whose fathers were employed at the Skilled level or below more frequently planned to attend a public area vocational-technical school than other types of institutions.

Students' Occupational Preferences

Desired Job Attributes and Autonomy: When asked to select the one attribute which they considered most important to them of jobs in general from a list of nine attributes, 34 percent selected "being happy in your job" and 21 percent selected "job that is interesting and exciting." The other options had less than 10 percent of the total responses.

When asked to respond to one of three levels of job autonomy, 47 percent indicated they preferred to "work independently," 30 percent indicated they preferred to "work under the direction of someone," and the remaining 23 percent indicated they preferred to "direct the work of other employees."

Occupations Considered by Students: Students were asked to list the three occupations they were giving most serious consideration to entering when they began full-time employment. Their responses were identified as first-listed, second-listed, and third-listed considered occupations. Ninety-five percent of the sample responded to a first-listed considered occupation, 87 percent responded to a second-listed occupation, and 70 percent responded

to a third-listed considered occupation. These occupations were coded by the Roe scheme and, in the distribution of each of these three responses, the greatest percents of responses were, in order, in the occupational groups of Organization, Service, and Technology. By level, the greatest percents of responses were, in order, at the Semiprofessional, Skilled, Semiskilled, and Professional/Managerial 2 levels.

An overall pattern of change from the first- to the second- to the third-listed considered occupations showed that the initial preference for Organization occupations and the adjacent group of Technology occupations lessened and was offset by an increasing preference for General Cultural occupations and, to a lesser degree, for Science occupations and for Arts and Entertainment occupations. Preference for occupational level seemed to change from the Semiprofessional level to those levels on either side of it; namely Skilled and Professional/Managerial 2.

> Students' occupational preferences were primarily for Organization occupations at the Semiprofessional level and adjacent occupations in the Technology group. Additional occupations named by students as second and third occupations to which they were giving serious consideration showed their p eferences for General Cultural, Science, and Arts and Entertainment occupations at the Semiprofessional and the Professional/Managerial 2 levels.

Students' Occupational Choices: Students were asked if they had made a choice of an occupation for themselves. Just over half, 56 percent of the sample, indicated they had made a choice, 44 percent indicated they had not. By curriculum, those students who had made an occupational choice represented three fourths of the Industrial students, just over half of the Office and HERO students, and just under a third of the Distributive students. There were very few differences in percent distributions by type of class, sex, or average grades of the respondents.

The distribution of occupations named by students as their individual choices most resembled those in the first-listed considered occupation distribution. Just under half of the occupations named were in the Organization group, 20 percent were in Service, and 15 percent were in Technology. By level, 40 percent were at the Semiprofessional level, 27 percent were at the Skilled

level, 16 percent were at the Professional/Managerial 2 level, and 14 percent were at the Semiskilled level.

A single cell in the matrix, the Semiprofessional level of Organization occupations, accounted for one third of the occupations named as students' choices. Of the 71 responses in that cell, 61 were "secretary" which reflected the large proportion of this sample who were Office students. The Professional/Managerial 2 level of the General Cultural group also had a high frequency of occupations named, especially among the considered occupations. The occupations of secondary and elementary teacher accounted for 50 of the 73 occupations named in this cell as one or more of the students' three considered occupations. However, "teacher" was named only three times among the occupations named as students' choices.

The pattern of change in preferences revealed by the change in percents of responses was almost linearly consistent across the choice occupations and the three considered occupations. The pattern of change was from the seemingly more realistic responses to the question asking for the students' occupational choice to progressively less realistic or more idealistic responses to their third-listed considered occupations.

> Just over half of the students, 56 percent, had indicated a choice of an occupation for themselves. Those students who had made a choice were primarily those with average and above average grades, enrolled in senior level, not cooperative, classes, and were Industrial students. Overall, the students' occupational choices were generally in the same areas as their vocational enrollment and at a level higher than their parents' occupations. Their choices were at the Semiprofessional and Skilled levels, none at the Unskilled level.

When Occupational Choice Was Made: Students were asked how long ago they had made their occupational choice. About half of the 225 students who had indicated an occupational choice responded that they had made that choice within the previous year. About a fourth indicated they had made that choice between one and two years previous, and the remaining 23 percent responded that they had made the choice "a long time before" or it had "always been their choice."

By curriculum, the largest group of Distributive and of HERO students had made their choice within the previous year; the largest group of

Industrial and of Office students had made their choice between one and two years previous. By sex, 52 percent of the female students compared to 38 percent of the male students had made their choice within the previous year. There were similar percents of males and females who made their choices one to two years previous and choices made "long ago" but differed again in the category of having always had that choice with 6 percent of the females and 14 percent of the males in that category.

> The students' occupational choices had been made relatively recently with most being made during the two previous years. Female students tended to make their choices within the previous year and male students tended to make their choices within the previous two years.

Training Needed for Occupational Choice: Students were asked to indicate the amount of training they felt was needed for their occupational choice from six options ranging from "less than high school" to "more than 4 years of college." Just over a third of the students indicated that a high school education was needed, over a third felt that high school plus apprenticeship or high school plus one or two years more of education was needed, and a fourth of the students felt that 4 or more years of college was needed for their occupational choice.

A fourth of the 120 students who planned post-high school education indicated that they thought their occupational choice needed only a high school diploma or less, thus making further education unnecessary for them. Of the 49 students who did not plan further education, a third indicated they thought that post-high school education was needed for their occupational choice. Over half of the 60 students who were "not sure" if they would continue their education indicated that post-high school education was needed for their occupational choice.

Although Roe's classification of occupational level is based on more factors than the amount of education needed for an occupation, an estimate of the amount of education needed for each of the Roe levels was made so that an analysis could be made of a student's educational expectations and the amount of education he estimated was needed for his occupational choice. The criteria were: Unskilled and Semiskilled occupations generally require only a high school education, Skilled generally require one or two years of education

beyond high school, Semiprofessional generally require two to four years of college work, and the two levels of Professional and Managerial usually require a bachelor's degree or more.

The cross-tabulation analysis of the level of a student's occupational choice by the amount of schooling he thought was necessary for that choice showed that 55 percent of the 213 students in this analysis were realistic about the amount of needed education for their occupational choices. Of the remaining 45 percent, a few underestimated the education needed for their occupational choice while the majority of those students overestimated needed education, some by as much as 4 years of education. Those students who chose Semiskilled occupations seemed to be less realistic or less knowledgeable about the amount of education needed, even for their chosen occupations. Almost half of this group, consisting primarily of two-thirds HERO students and one-third Office students, planned post-high school education for themselves.

As a whole students in this study were somewhat more realistic than high school students in general about the level of education needed for various occupations. While the criteria for determining appropriate amounts of education for given occupational levels are not precise, the judgment of over half of the students coincided with the generally accepted amount of needed education for various levels of occupations.

> The students were generally realistic about the amount of education needed for their occupational choices but where they were not realistic, they more frequently overestimated rather than underestimated the amount of needed education. When the response from each student relative to the amount of education needed for his occupational choice was compared to the amount of education he planned to get, 27 students planned to get more than they indicated was needed, 18 students did not plan to get as much education as they indicated was needed, and 32 who were not sure of their plans for further schooling indicated their occupational choices needed post-high school education.

Present Schooling Helpful in Future Job: Students who had made an occupational choice were asked to indicate how helpful they felt their current school work would be to them in their job when they began full-time employment. Two thirds of the 229 respondents to this question indicated they felt it

would be "of great help," a fourth indicated it would be "of a little help," and the remaining fraction responded that they felt it was "of no help at all." There were statistically significant differences in these responses by students in the four curricula. Almost 90 percent of the Industrial students felt their school work was "of great help" compared to the 70 percent of the Office and 55 percent of the HERO students who felt that way. Distributive students were much less satisfied that their school work would be of help to them; only 43 percent responded that it would be "of great help." Distributive students also had the largest proportion of all curricula, 18 percent, who responded that they felt their school work would be "of no help at all." The analysis by the sex of the student showed that 78 percent of the male students compared to 64 percent of the female students felt their school work was "of great help."

> Most of those students who had indicated an occupational choice for themselves felt that their school work would be "of great help" to them when they began full-time work. Differences between students in different curricula showed that Industrial students were far more satisfied that their school work would be of value to them in their work and Distributive students were far less satisfied with the value of their school work than were students in other curricula.

Relative Importance of Attributes of Student's Occupational Choice: Students who had indicated an occupational choice for themselves were asked to rank in order the three most important attributes of their occupational choice. They were given a list of six options and an opportunity to add others if they so desired. By students' responses, those six attributes were ranked in the following order of importance: 1) salary, 2) challenge and excitement, 3) working conditions, 4) job security, 5) desired type of activity, and 6) status in society.

The responses to this question were compared to the responses previously reported relative to the most important attribute of jobs in general. In the prior question, the two options which accounted for more than half the responses were intrinsic values in work; namely, "being happy in your job" and "job that is interesting and exciting." However, the order of importance of the attributes of the students' occupational choices were more extrinsic with salary ranked first.

Students tended to place higher priority on intrinsic values of jobs in general but extrinsic values on the occupation of their choice.

Comparison of Male Student's Choice With Father's Occupation: Cross-tabulations were made of a male student's choice of occupational group and level by his father's occupational group and level. There were 39 male students who indicated both an occupational choice for themselves and an occupation for their fathers and thus were included in this analysis. Of those 39 students, 17 selected the same occupational group as their fathers', all but one match being in the Technology group. Eight students selected an occupation in a group adjacent to their fathers' occupational groups and sixteen students selected an occupational group which was two or more groups discrepant from their fathers' groups.

By occupational level, 11 of the 39 male students selected the same level as their fathers' while 9 students selected a level one or two levels below that of their fathers' occupations, 11 selected occupations one level above, and 8 selected a level two or more levels above that of their fathers' occupations.

Over half of the male students (60 percent) selected an occupation in the same or adjacent occupational group as their fathers' occupations and over three fourths (80 percent) selected an occupation at the same or adjacent occupational level as their fathers' occupations.

Comparison of Female Student's Choice With Mother's Occupation: Similar comparisons were made of the female students' choices of occupational group and level with those of their employed mothers. There were 84 female students in this analysis; 27 chose the same group in which their mothers were employed and 11 chose groups which were adjacent to their mothers' occupational groups. Over half, 46, chose an occupation which was two or more groups discrepant from their mothers' occupations. By level, 16 female students chose occupations at the same level as their mothers' occupations, 13 chose a level below that of their mothers' occupations, 26 chose a level one above their mothers', and 29 chose a level which was two or more levels above that of their mothers' occupations.

Just under half (45 percent) of the female students selected an occupation in the same or adjacent occupational group as their mothers' occupations and over half (61 percent) selected an occupation at the same or adjacent occupational level as their mothers' occupations.

Occupational Group and Level Discrepancy Scores

A discrepancy score of occupational group was computed equal to the number of steps between the groups of the two occupations being compared. Because the Roe occupational classification matrix is cylindrical, the greatest score possible of group discrepancy was 4. As an example, the discrepancy between a Group 1 occupation and a Group 5 occupation would be 4; between a Group 1 occupation and a Group 6 occupation, the discrepancy score would be 3 since Group 6 is three groups removed from Group 1; namely steps to Groups 7, 8, and a third step to Group 1 itself.

Level discrepancy scores were computed by taking the numeric difference between the numbered levels 1 through 6, Unskilled through Professional/ Managerial 1.

Three pairs of occupations were compared in this way. The first comparison was between the first-listed and the second-listed considered occupations, on both group and level, and is referred to as the "self group and level discrepancy scores." The second set of discrepancy scores was computed between the student's occupational choice and his or her father's occupation and is referred to as the "father group and level discrepancy scores." The final set of discrepancy scores was computed between the student's occupational choice and his or her mother's occupation, referred to as the "mother group and level discrepancy scores." These discrepancy scores provided an index for identifying the similarity or difference between the compared occupations.

Self Discrepancy Scores: There were 318 students who indicated both a first-listed and a second-listed considered occupation and for whom self discrepancy scores could be computed. Of those students, 44 percent had a group discrepancy score of 0 which indicated that the two occupations which they named were classified in the same occupational group. Those with a self group discrepancy score of 1 represented 10 percent of this subsample; a score

of 1 indicated they had selected occupations from two different but adjacent groups. The more-discrepant self group scores of 2 through 4 accounted for the remaining 46 percent of the students in this analysis.

The comparison of occupational levels of the first-listed and second-listed considered occupations revealed that 31 percent of the students had a self level discrepancy score of 0 indicating they had named two occupations classified at the same level. Forty five percent had a self level discrepancy score of 1. The remaining 24 percent had the more discrepant scores of 2 through 4. It was possible to have a level discrepancy score of 5 representing the difference between the highest and lowest levels, but the highest level discrepancy scores found in this study were 4.

By curriculum, three fourths of the Industrial students, 76 percent, compared to less than half of the Office students, 46 percent, had the lower, less-discrepant self group scores of 0 and 1. HERO and Distributive students were each about equally divided between the less-discrepant group scores of 0 and 1 and the more-discrepant scores of 2, 3, and 4.

Analysis of the self level discrepancy scores showed that, again, more Industrial students, 94 percent, had the less-discrepant scores of 0 and 1 than did students in any other curricula. Office students were next least-discrepant with 78 percent with those scores followed, in order, by Distributive students with 70 percent and HERO students with 65 percent with the low-discrepancy scores of 0 and 1.

Overall, 56 percent of the students in these analyses were considering occupations in two different groups and 70 percent were considering occupations at two different levels.

> The self discrepancy scores of group and level, those between the first two occupations a student indicated he was seriously considering entering, were of primary interest in this study. Students' self group discrepancy scores tended to fall into two nearly equal groups which were somewhat related to curriculum and sex. Students with the less-discrepant scores of 0 and 1 were primarily males in the Industrial curriculum while students with the more-discrepant scores of 2, 3, and 4 were primarily females in the Office curriculum.
>
> Students' self level discrepancy scores tended to fall into three distinct groups which, also, were somewhat related to curriculum and sex. Just under a third of the students had self level

discrepancy scores of 0 and those students were primarily males in the Industrial curriculum. Just under one half of all students had self level scores of 1 but no major differences appeared between curricula or sex in this group. The third group of students, representing the remaining fifth of the sample, had the more-discrepant level scores of 2, 3, and 4 and were primarily female students in the HERO curriculum.

Father Discrepancy Scores: There were 176 students who indicated both an occupational choice for themselves and an occupation for their fathers. While 30 percent of these students had a father group discrepancy score of 0, 44 percent of the males compared to 26 percent of the females had that score. An even greater difference in percents appeared in the proportion of males and females with the score of 1; 15 percent of the males and 40 percent of the females had a father group score of 1. The scores of 0 and 1 reflected little or no discrepancy with the father's occupational group and, cumulatively, 59 percent of the males and 66 percent of the females had those scores.

Male and female students had nearly identical proportions of their members with father level discrepancy scores of 0 and 1; 77 percent of the male students and 72 percent of the female students had those less-discrepant scores.

If some degree of influence of the father's occupation on the student's occupational choices can be inferred from these data, as was the purpose of analyzing the data, it would appear that his occupation had a greater influence on the son's choice of an occupation than on the daughter's choice. But, because the majority of both the sons and daughters had the less-discrepant father group and level discrepancy scores of 0 and 1, which indicated that many students chose occupations in the same or adjacent occupational groups and levels of their fathers' occupations, it appears that the father's occupation was an influence on the student's choice of an occupation.

Mother Discrepancy Scores: A subsample of 112 students reported both an occupational choice for themselves and an occupation for their mothers. The percent of students in the five mother group discrepancy score categories were more evenly distributed in this analysis than in the self or father group discrepancy scores analyses. This more even distribution indicated relatively more discrepancy than in the previous analyses. Students who had a group discrepancy score of 0 in this analysis represented 21 percent of the male

students and 32 percent of the female students. However, the combined percents of male students with the less-discrepant scores of 0 and 1 were 43 percent which was similar to the combined percents of female students of 45 percent with those same scores.

The pattern of mother level discrepancy scores was also diverse. Approximately half the male and half the female students had the less-discrepant level scores of 0 and 1 and the remaining half of each group had the more-discrepant scores of 2, 3, and 4.

> The relatively even distribution of mother group and level discrepancy scores for both male and female students might indicate that the mother's occupation was more of a point of departure than an influence to choose a similar occupation for both sons and daughters. The daughters were no more influenced than were the sons by their mothers' occupations.

Sources of Helpful Occupational Information

Students who had indicated an occupational choice for themselves were asked to respond to a list of ten potential sources of occupational information by ranking four of the ten sources as to the relative helpfulness of each of those four in providing information about the students' occupational choices. Students were to rank those four sources as first, second, and third most helpful and the one which was least helpful.

Overall, male and female students ranked the helpfulness of the ten sources in similar order, the major difference being that males ranked their father as most helpful and their mother as fourth most helpful; females ranked those two sources in reverse order. Teachers were ranked second and workers which the students knew in the field of the student's occupational preference ranked third among both male and female students. Female students ranked friends as fifth in overall helpfulness while male students ranked friends as ninth. The other sources were ranked by male and female students from sixth to tenth place in the following order: books and magazines, pamphlets, relatives other than their parents, school counselors, and TV and radio.

The "least helpful" category elicited responses from 46 male students and from 151 female students. Among male students the three most frequently named least helpful sources, in order, were counselors, friends, and mother.

Among female students, that order was TV and radio, counselors, and friends. The remaining overall rankings of fourth through tenth of the least helpful sources varied greatly between male and female students.

Analyses were made of the group and level discrepancy scores between the first two occupations students were considering entering (self discrepancy scores) and the sources of helpful occupational information which the students acknowledged. Results of the analyses indicated that students with lower self group discrepancy scores listed father, mother, other relatives, counselors, and workers as helpful sources. Students with the highest mean self group discrepancy scores listed TV and radio as reference sources of occupational information.

The results of the analyses of level discrepancy scores indicated that students with the lower level discrepancy scores listed workers and teachers as most helpful sources of occupational information.

> Parents, teachers, and workers were more often cited for providing the most helpful occupational information to students. Those students who cited these sources had relatively less discrepancy of occupational group and level of their occupational preferences than did students who cited these sources as least helpful.

> Counselors, friends, and TV and radio were cited as least helpful sources of occupational information. Those students who cited these as helpful sources had relatively greater discrepancy of occupational group and level of their occupational preferences than did students who cited these sources as least helpful.

Sources of Influence, Approval, and Pressure on Occupational Choice

Those students who indicated an occupational choice for themselves were asked to respond to a series of questions about sources of relative influence and pressure on their occupational choice-making and whether selected individuals had approved their occupational choice.

The students' responses indicated that parents and teachers were more influential on their occupational choices than were friends or counselors. Among male students, teachers were ranked as the most influential source with fathers ranked second. Female students ranked their mothers as their most influential source and teachers as second in influence.

The majority of students felt they had the approval of their occupational choice by parents, teachers, and friends. Few students indicated they did not have the approval of the sources listed but over half of the male students and two thirds of the female students did not know whether they had the approval of their counselors.

Relatively few students felt great pressure to make an occupational choice from any of the three identified sources; but where some pressure was felt, more of it came from parents, a lesser amount from teachers, and the least amount of pressure came from counselors.

The results of the analyses of self group and level discrepancy scores indicated that students who reported they were greatly influenced in their occupational choice by teachers had significantly lower group and level discrepancy scores than did students who reported little or no influence from teachers. The only other statistically significant differences in discrepancy scores were between the high group and level discrepancy scores of the few students who indicated they felt great pressure from counselors to make an occupational choice and the low discrepancy scores of students who felt no such pressure.

> Parents and teachers were seen by students as very influential on their occupational choices, were supportive of those choices, but exerted little or no pressure on students to make a choice of any occupation.

Students' Feelings About Selected Occupations

Students were asked to respond to a list of 19 occupations, ranging from semiskilled to the professions, by ranking each of them on a five-point scale of desirability, from very attractive to very unattractive, as occupations in general, but not how attractive a given occupation was to them as a possible career for themselves. The relative attractiveness of the 19 selected occupations was almost in direct relationship to the level of each occupation as classified by Roe's scheme--the higher level occupations were rated by the students as attractive work while skilled and semiskilled occupations were rated as unattractive or useful work. The responses of both male and female students ranked the professionals of "physician" and "attorney" as first and

second and the last-ranked occupation was that of "waitress." All other rankings of responses by male students were different from those by female students and it was apparent that their own occupational preferences entered into their rankings and reflected the students' higher ratings for occupations generally filled by members of their own sex and lower ratings for those filled by members of the opposite sex. For example, females ranked "secretary" as fifth and "mechanic" as sixteenth; male students ranked those two occupations in reverse order.

Occupational Information Test (OIT)

A part of the occupational information test developed by Parnes of The Ohio State University was used to provide an index to the students' knowledge of the world of work. The test was designed for a study involving only young males and the portion of it adopted for this study required the identification of both the duties of and the amount of schooling usually held by workers in seven different occupations.

As might be expected because the test was oriented to young males, Industrial students scored the highest. Office and Distributive students scored about half as high as the Industrial students and HERO students scored the lowest. By type of class, cooperative students scored the highest and junior/senior related students scored the lowest. By sex, male students had nearly three times the percent of scores in the highest quartile as did female students.

Analysis was made of the sources of helpful occupational information indicated by those students who scored in the highest and those who scored in the lowest quartiles on the OIT. The results of the analysis indicated that there was no association between the sources of helpful occupational information and high or low OIT scores.

> The students who scored high on the Occupational Information Test were, as expected, male students in the Industrial curriculum since the test was originally designed for young males. HERO students scored the lowest of the four curricula. There was no relationship between high or low scores and the relative helpfulness of the various sources of occupational information.

Summaries By Curriculum, By Sex, and By Sources of Influence

The following summaries will present cumulative data by curriculum, by the sex of the student, and by each of the five individuals about whom data were collected relative to their overall influence on students' occupational preferences and choices.

There were consistent differences between the groups of students in the four curricula and these differences tended to form a consistent descriptive pattern unique to each of these four groups of students.

Industrial students were more decisive about their occupational choices, which were made longer ago, and they were more consistent in their occupational preferences than students in other curricula. They made average grades. were more enthusiastic about school in general and far more satisfied that their school work would be helpful to them when they began full-time work, and, for the half of the group who planned further schooling after high school, more of them planned to attend public area vocational-technical schools than did students in other curricula.

Office students were the least consistent relative to their occupational preferences and choices, made the highest grades, were more sure of their plans for post-high school education, and were more likely to plan to attend a 4-year college or university than students in the other curricula. They were generally satisfied with school and its helpfulness to them in their occupational choices.

HERO students reflected a moderate amount of consistency of occupational group in their preferences and choices of occupations but were more discrepant than students in other curricula relative to their preferences of occupational level. Those who had made an occupational choice did so recently. They made average grades and were moderately satisfied with school and the usefulness of their school work to them when they began full-time work.

Distributive students were the most diverse group of students, reflected moderate consistency in their occupational preferences but had the smallest percent of any curricula who had made an occupational choice. Those who had made a choice did so during their senior year. They made average grades but were the least satisfied with school and its helpfulness to them in their

occupational choices than were other students. This relative dissatisfaction with the helpfulness of school to their employment may be due, in part, to their recent occupational choices and hence a lack of careful planning for school courses which might have been more helpful to those choices.

Male students had made their occupational choices earlier than did female students and those choices were similar in occupational group to their fathers' occupations and more often at levels above their fathers' occupations.

Female students made their occupational choices later than did male students and generally chose occupations very different from those of their mothers--in both occupational group and level.

Five primary sources of occupational information and of influence, approval, and pressure relative to students' occupational choices were identified for study in this research. The following summaries present data relative to each of those sources.

Fathers represented the most helpful source of occupational information for sons and the fourth most helpful source for daughters. Students who named their fathers as a helpful source of information were significantly more consistent in their occupational preferences than were those students who named their fathers as a least helpful source of information.

Sons named their fathers second most influential source and daughters named them fourth most influential source in their choice of an occupation. The fathers' occupations seemed to be influential on the occupational choices of both the sons and daughters but more so on the sons' choices than on the daughters' choices. Both sons and daughters felt that they had their fathers' approval for their occupational choices and both sons and daughters were about equally divided between those who felt no pressure from their fathers to make an occupational choice and those who felt either some or great pressure.

Mothers were named the most helpful source of occupational information for daughters and fourth most helpful source for sons. Those students who named their mothers as a helpful source were no more consistent in their

occupational preferences than those who named their mothers as their least helpful source. The mothers' occupations did not seem to have an influence on the occupational choices of their sons or daughters although only half the students reported occupations outside the home for their mothers. There was great diversity between the mothers' occupations and those chosen by their sons and daughters.

However, daughters named their mothers as most influential and sons named them as third most influential in their choice of an occupation. Both sons and daughters felt they had their mothers' approval of their occupational choices and, as with fathers, the sons and daughters were about equally divided between those who felt no pressure from their mothers to make an occupational choice and those who felt some or great pressure from their mothers to make such a choice.

Teachers were named as the second overall most helpful source of occupational information for both male and female students and those who named teachers as a helpful source were significantly more consistent in their occupational preferences than were those who named teachers as a least helpful source. Male students felt that teachers were most influential and female students felt they were second most influential on their occupational choices. Over half of the male and the female students felt they had the approval of their teachers for their occupational choices but just over a third of each group did not know whether they had their teachers' approval.

While two thirds of the male students and half the female students felt no pressure from teachers to make an occupational choice, teachers were the source named most frequently as exerting great pressure to make such a choice. About 13 percent of both the male and female students reported feeling great pressure from their teachers to make an occupational choice. The rest of the students felt some pressure from teachers.

Counselors were ranked ninth by female students and tenth by male students of the ten sources of helpful occupational information. There was another and larger group of students who named counselors as a least helpful source rather than a helpful source of information. Among those students, males

ranked counselors first and females ranked them second of the ten sources named as least helpful. The students who named counselors as a helpful source of information were no more consistent in their occupational preferences than were those who named them as least helpful.

Both male and female students ranked counselors as fifth of the five sources of influence on their occupational choices. Two thirds of both groups, male and female students, did not know whether their counselors approved of their occupational choice while the remaining third of each group felt they did have their counselors' approval.

Counselors exerted the least amount of pressure on students to make an occupational choice. Three fourths of the male and the female students reported feeling no pressure from counselors to make a choice, only 8 percent of the males and 4 percent of the females reported feeling great pressure from counselors, and the remaining few students reported they felt some pressure from counselors to make an occupational choice.

Closest friends of female students were named as more helpful sources of occupational information than were friends of male students. Female students ranked friends as fifth of the ten sources of helpful information while male students ranked them as ninth. Another group of students, those who named friends as a least helpful source of such information, ranked them second, by male students, and third, by female students, of the least helpful sources. Those students who named friends as a source of helpful information were significantly less consistent in their occupational preferences than were those students who named friends as a least helpful source.

Male students ranked friends as fourth and female students ranked them as third in influence of the five sources of influence on their occupational choices. Friends were generally approving of the students' occupational choices but 6 percent of the males compared to 2 percent of the females felt their friends did not approve of their choices. Over a third of the male and of the female students did not know whether their friends approved of their occupational choice. Data were not collected relative to any pressure students might have felt from friends to make an occupational choice.

DISCUSSION

Inferences of Vocational Maturity

The purpose of this study was to explore selected factors related to high school students' occupational choice-making process. There are several viewpoints, involving value judgments, on how firm a high school students' occupational choice should be and what degree of vocational maturity, in terms of decisiveness of occupational choices, should be expected of them. The data collected for this study came exclusively from students and reflects their views of the various factors under study and provided information about the firmness of their occupational choices. Findings of this research make observations about the students' level of vocational maturity, and value judgments relative to that maturity, a necessity.

A relative level of vocational maturity has been inferred from these data according to a student's decisiveness of an occupational choice for himself and/or his consistency of occupational preferences. The student's decisiveness was based on whether or not he indicated an occupational choice. His occupational preferences were based on two occupations he named as those he was seriously considering entering. The degree of consistency of occupational preferences was based on whether the two occupations named were from the same or adjacent occupational groups or levels, as defined by Roe, or if they were from discrepant, nonadjacent groups or levels.

Consistency of occupational preferences of high school students or whether they have made an occupational choice cannot be interpreted appropriately without relating such information to other factors about the students. Interpretation of such data also depends upon the orientation and purpose of the person making the interpretations. Because data relative to these two factors and their relationship to other known factors about the students form the basis of much of the analyses in this study and the conclusions drawn from those analyses, the presentation of this researcher's orientation to these factors is in order.

Diversity of preferences for occupational groups and levels between the occupations which a student is giving most serious consideration to entering

can be entirely appropriate or desirable. A student with such diversity of preferences may be holding open his occupational options, based on information known to him, and does not feel undue pressure to narrow his choices or to make a decision. However, consistency of preferences for occupations, especially for occupational groups, may indicate a relatively more mature level of occupational choice-making. The students in this study were mostly seniors representing the majority of students enrolled in cooperative education in all four curricular areas in the Wichita Public Schools plus a fair representation of senior-level vocational students in Office programs who were not in cooperative programs. It would be in order, therefore, to expect a higher level of vocational maturity as reflected through occupational choice and stability of occupational preferences from these students than from students across a total high school population. By their enrollment in these vocational programs, they had made some tentative choice of an occupation or an occupational group.

However, just over half, 56 percent, of the students in this sample indicated they actually had made an occupational choice. Consistency of occupational preferences showed that the students were nearly equally divided into two groups--those with consistent preferences and those with discrepant preferences. Nearly half of the students in this sample had not reached the expected level of vocational maturity.

This study did not explore the reasons why a student did not indicate an occupational choice, whether for lack of adequate occupational information, reluctance to make a single choice, or decision to hold open his occupational options for the present for whatever reasons. Neither were students asked if they felt they had adequate occupational information on which to make an occupational choice.

Students Served and Not Served by Vocational Education

Of the 366 students in this sample, 296 students or 80 percent reported an occupation for their fathers from which an occupational level and group could be determined. The great majority of these students, 89.6 percent, came from families where the father was employed at the Semiskilled, Skilled, or

Semiprofessional level. Of those 296 occupations reported for fathers, 6 were classified at the Unskilled level, 24 were classified at the Professional/Managerial 2 level, and 1 was classified at the Professional/Managerial 1 level. These 31 occupations, 6 Unskilled and 25 Professional/Managerial, equalled only 10.4 percent of the reported occupations for fathers.

No data were collected or used which would provide a profile for the occupational level of the fathers of Wichita public senior high school students or a profile of the City's youth ages 15 through 18 with which these research findings might be compared. It is readily apparent, however, that disproportionately low numbers of students came from families where the fathers were employed at either the Unskilled or the two Professional/Managerial levels and disproportionately high numbers of students came from families where the fathers were employed at the Semiskilled, Skilled, and Semiprofessional levels.

Few students had fathers who were employed at the extremes of the occupational level continuum. Some students, typically those from families whose fathers are employed at the higher occupational levels, may not have been attracted to vocational education programs. Some students have dropped out of school altogether before reaching their senior year; other students may have dropped out or been forced out of vocational programs in which they were enrolled and still others may have been refused admittance to a vocational program. For whatever combination of reasons, the vocational programs sampled in this study did not have students from families whose fathers were employed at the higher and lowest occupational levels.

Teachers' and Counselors' Roles in Occupational Decision-Making

Teachers were consistently reported by students as the most influential for their occupational choice-making according to student responses to several questions. If the students related those questions to the teacher in whose class the Questionnaire was administered, the strong influence may, in part, be explained by the possibility that the vocational teacher was reinforcing a student's previous choice of an occupational area by being the student's senior-level vocational teacher. If the vocational teacher was not the reference teacher for the students' responses, the general identity of those influential teachers can only be guessed since the study in no way defines "teacher."

Counselors, on the other hand, were consistently reported as the source of least influence on occupational choice-making. It must be mentioned that the ratio of counselors to students in a typical school year in the Wichita Public Schools ranges from 1 counselor serving 300 to 600 students with very infrequent student contact where the ratio of teachers to students seldom exceeds 1 to 180 with daily student contact.

More students named counselors as a least helpful source than named them as one of three most helpful sources. Some of these students may have had certain expectations of what counselors could and should do for them and, when these expectations were not fulfilled, the students may have become critical of counselors. Another possible explanation for the students' responses relative to counselors is that the students' expectations far exceeded the responsibility counselors were charged with in providing information, not to mention influence, approval, or pressure relative to student's occupational choices.

Comparison of Most- and Least-Satisfied Students by Curriculum

Students in the Distributive curriculum were least satisfied with school in general and how helpful their school work would be to their eventual employment and the least decisive about an occupational choice of the students in the total sample. Distributive Education is a cooperative, senior-level-only program and the requirements for enrollment include the least amount of prior preparation of its enrollees of the four curricula in this study. The data suggest that some Distributive students made their choice of an occupation during their participation in the Distributive program and that choice was not for an occupation in the Distributive area. Therefore, their specific course work was not directed toward their new occupational choice and this may have created some of the dissatisfaction. The fact that so few Distributive students indicated an occupational choice, less than a third did, may be due to students changing their minds about a previous choice of a Distributive occupation but had not yet made an alternate choice. Some students may have enrolled to explore possible occupations.

Industrial students, on the other hand, were most enthusiastic about school in general and most satisfied of all the students that their school work

would be of great help to them in their eventual employment. These students were also the most decisive about an occupational choice--three fourths indicated an occupational choice. Industrial programs typically have a longer sequence of courses available than other curricula usually starting with exploratory courses that are not of a vocational nature. It may be that Industrial students had a longer time, two or three years, in which to make and review any initial occupational choice and those who remained in the Industrial program through their senior year in high school had, indeed, decided upon an Industrial occupation.

The School's Role in Occupational Decision-Making

A critical portion of an individual's occupational decision-making process takes place while he is in school, especially during his junior and senior high school years. This process is preceded by and is dependent upon an individual's knowledge of occupations and upon his self evaluation, both of which are acquired from his experiences in and out-of-school activities, formal or informal. Students should be actively involved in acquiring occupational and career information early in their school careers and, through that information, be able to use the opportunities which are potentially theirs. With basic career information acquired early in their schooling, students can explore more occupational options, make wiser tentative occupational choices, and better utilize their elective courses to prepare themselves for successful and satisfying entry into an occupation or into further ecucation at the conclusion of their high school years. All students are, in fact, making such decisions as they progress through these junior and senior high school years, but too often it is done with no organized assistance and inadequate information.

The results of this study indicated that the students' vocational maturity had not progressed to a level where the large majority of students had chosen an occupation and were enrolled in programs leading to employment in their chosen fields. On the other hand, there may be many potential students who have made an occupational decision to enter these same fields but who are not enrolled in these programs. It is a challenge to school systems to assist

students in their occupational decision-making and facilitate enrollment of students in appropriate programs. Large schools can provide, due to their adequate flow of students, a broad array of programs in a number of occupational areas. Many of these programs are further broadened through cooperative education agreements with local employers. For a student to have these opportunities in reality, however, he must first be assisted to make at least tentative decisions about occupations and then be made aware of the programs available to him.

The composition of the sample in this study imposes limitations on the conclusions and generalizations which can be drawn from the results. The sample included only vocational students, three fourths of whom were female, so generalizations to a total high school population are not possible.

CONCLUSIONS

Based upon the data analyses and foregoing discussion, the following conclusions seem warranted:

1) The Roe Occupational Classification scheme was useful in this study for systematically classifying the occupations named by students and for subsequent analyses of these data.

2) Students could respond with occupational titles to open-ended format questions asking for such data. The open-ended format eliminated the chance of suggesting occupations to students which may have occurred had a prepared list of occupations been presented from which students could select responses.

3) The students served by vocational education programs tended not to be characteristic or representative of the students enrolled in Wichita's total high school system or the 15- to 18-year-old youths in the City of Wichita.

4) Just under half, 44 percent, of the primarily senior-level, all-vocational students of this study reflected a level of vocational maturity below that which might be expected of them based on either their decisiveness of an occupational choice or their consistency of occupational preferences.

5) Decisiveness of occupational choice seemed to correspond with satisfaction with school in general and with the value of school work to eventual employment. The most-decisive Industrial students were also the most satisfied

students with school while the least-decisive Distributive students were the least satisfied with school.

6) Male students were more independent of friends' influence on and approval of their occupational preferences and choices than were female students.

7) Teachers were consistently seen by students as most influential on their occupational preferences and choices. This influence may possibly be more than is generally realized by even the teachers themselves.

8) Counselors were consistently seen by students as least influential on their occupational preferences and choices.

9) Parents were seen by students as being helpful in providing occupational information and were influential on and approving of students' occupational choices.

10) Fathers' occupations were related to the son's occupational choices but mothers' occupations did not seem to be related to daughters' occupational choices.

11) The majority of the students who indicated an occupational choice were realistic about the amount of education needed for that occupation.

12) Students related to individuals, more often teachers, parents, and workers, rather than written and audio-video sources for helpful occupational information.

13) Workers whom students knew in the areas of their occupational preferences were seen by the students as quite helpful in providing students with occupational information.

14) A student's plans for continued education beyond high school and his choice of type of post-high school institution were related to his curriculum, grades, and the level of his father's occupation.

RECOMMENDATIONS

The results of the data analyses, the discussion, and the conclusions drawn from those analyses provide the basis for two kinds of recommendations, those for the educational program serving a group of students similar to those in this study and those for further, more definitive research.

Recommendations for the Educational Program

Students must be assisted in learning how to make decisions, more specifically decisions about their occupational preferences and choice, and must be assisted in learning how to gather the necessary information on which to make those decisions. To bring about this learning, a program for occupational and career information and decision-making must be developed and conducted through the joint efforts of the regular teaching staff on all grade levels, the guidance and counseling personnel for all grade levels, and the vocational teachers. This program should facilitate the students' gaining occupational and career information as a part of their regular educational programs on all grade levels. By the time the students reach junior high school and the first year of senior high school, they should know about and have exploratory programs available to them in the many vocational fields which precede programs designed for occupational preparation. Typical of areas where exploratory activities could be accomplished are industrial arts, business, home economics related occupations, and health occupations exploration.

The great influence of teachers on students' occupational preferences is documented in this study. Even without further defining, all teachers undoubtedly have measureable influence on students. Teachers should be reminded and sensitized to the amount of influence they have on students and how best to make that influence work to the advantage of the students. Teachers should encourage and lead students in occupational exploration, regular self-evaluation relative to occupational choices, and practice in decision-making for themselves.

The amount of possible and appropriate involvement of guidance counselors in a career education and guidance program may be debated but involved they should be. Their expertise and efforts should be coordinated with those of the regular teaching staff and other support personnel in developing and conducting a complete, consistent program for students.

Recommendations for Further Research

The results of this study raised a number of questions relevant to the topic but not explored in this study. These results also drew attention to the need for more in-depth detail of data on some of the variables included for study in this research.

Another study similar to this one, concerned with the exploration of influential factors related to high school students' occupational decision-making process, should include a representative sample of the total high school population to determine if there are differences in these factors among students in the vocational program, in the college preparatory program, and in the general education program. Including all high school grade levels would provide the opportunity to determine if there are significant changes across grade levels in the decisiveness of students relative to their occupational choices. This type of sample could provide data to answer the question what students are most decisive and what kinds of school experiences have they had relative to their occupational choices.

This study explored the students' views of sources of helpful occupational information. In addition to this information, it should be determined how adequate students feel their occupational information is and what sources would they go to for information or from what sources would they accept such information.

Teachers were identified as being influential on students' occupational preferences and choices but still to be determined are which teachers are influential and how are they influential on students. The same questions apply to two other explored sources of occupational information and influence; namely, workers and friends.

Many of the factors explored in this study are, in themselves, topics worthy of a research study.

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University of Illinois
Champaign, Illinois

Dear _____ RE: Your class of _____

The process which students go through to make their occupational choices and the information on which they base those choices have always been important to us as teachers. They have become more important because of the many opportunities open to students for training while in high school and the current push to develop more career awareness in the elementary grades.

I am requesting your help in a study designed to gather data, through the use of a questionnaire, on the following things:

* perceptions which students have of work and of selected representative kinds of work
* their choice, if any, of a kind of work they wish to pursue
* extent of school guidance programs on their choice of work
* identification of the individuals and the extent of their influence on the students' choice of work

I have worked with Dr. Ralph Walker in the Research Division and with the Research Council and have their approval to request your help. I do apologize that I cannot make this request in person. The help I need from you is in the administration of this questionnaire to the students in your class as designated above and then returning the questionnaires, answer sheets, and the Identification Sheet to Mr. Doyle Wilcox at the Vocational-Technical Center.

This questionnaire has been field tested here in Illinois with 86 students in programs similar to yours. It has taken about 40 minutes at the longest for students to complete the questionnaire.

A sheet of instructions to be read to the students has been prepared and is attached. Questions 4 through 12 really pertain to any individual in the home who takes the role of the parent or guardian. They may be grandparents, aunts and uncles, or foster parents. Question 17 has one option "non-public business or technical colleges" which refers to such schools as Wichita Business College, the IBM training center in Kansas City, etc.

Your help with this study is greatly appreciated. I will be more than glad to share the findings with you.

Thanks a million

Ruth M. Lungstrum
Grad student in the middle of a big research project

3

Instructions for Administering Student Form

After each student has his questionnaire and answer sheet in front of him, please read aloud the following paragraphs:

(from Page 1 of the questionnaire)
Instructions: A separate answer sheet has been provided for your answers to this questionnaire. Please mark all your answers on that answer sheet and make no marks on the questionnaire.

The answer sheet has parentheses ( ) matching each answer possible for each question. Find the ( ) labeled the same as the answer you select for each question and put an "X" in the ( ).

Example: 00. 1 ( ) 2 ( ) 3 (X) 4 ( ) 5 ( )

Blank lines are provided for the few questions asking for a written answer.

(add)
You may use pencil or pen. Do not write your name or any other identification on either the questionnaire or the answer sheet.

Please look at Question 4. Note that if you mark "2" as your answer, you are then to skip to Question 7 omitting Questions 5 and 6. There will be other directions similar to this in the questionnaire.

Now please look at Question 26. The instructions are different for this question. Note that you are requested to rank four of those items using the figures "1," "2," and "3" for first, second, and third choice and an "X" for your last choice.

Even though you may be married, please answer the questions pertaining to your parents.

There are some questions pertaining to the kinds of work your parents do and the kinds of work you are interested in doing. When you answer these questions, please be as specific as you can. For instance, if you are interested in working in a hospital, indicate the kind of work you have in mind such as secretary, nurse, nurse aide, cook, doctor, etc.

The marginal figures in the right margin of the answer sheets are for the key-punch operators who will code your answers onto data cards.

You are not timed on taking this questionnaire except by limitations of class time.

If you have questions about the questionnaire, please ask me about them. I cannot, however, answer any questions about the last part of the questionnaire on the KNOWLEDGE OF THE WORLD OF WORK. Do the best you can on that section.

You may begin.

WORK PERCEPTIONS AND CHOICE

APPENDIX C

Identification Sheet

Please keep answer sheets in groups by classes for coding purposes as indicated below.

The answer sheets attached are from students in:

(check one)

_____ East High

_____ Heights High

_____ North High

_____ South High

_____ Southeast High

_____ West High

_____ Vocational-Technical Center

_____ Community Education Center

_____ Schweiter Technical School

- -

(check one)

_____ Agriculture Education

_____ Distributive Education

_____ Home Economics Related Occupations Education

_____ Office/Data Processing Occupations Education

_____ Trade and Industry Occupations Education

_____ Technical Trade and Industry Occupations Education

- -

(check one)

_____ Cooperative Program

_____ Senior level, non-cooperative program (classes made up of primarily seniors, such as Secretarial Training)

_____ Related programs (those which do not fit into the two previous categories

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WORK PERCEPTIONS AND CHOICE

STUDENT FORM

NOTE: The N and % are of those responding to each question. For comparisons, the total sample included 366 students.

Responses N	Responses %	Question Content with Options
		School
36	9.8	East High School
29	7.9	Heights High School
60	16.4	North High School
57	15.6	South High School
27	7.4	Southeast High School
85	23.2	West High School
47	12.8	Vocational-Technical Center
20	5.5	Community Education Center
5	1.4	Schweiter (Technical) School
366	100.0	TOTAL
		Curriculum in which student is enrolled
63	17.2	Distributive Occupations
83	22.7	Home Economics Related Occupations
168	45.9	Office Occupations
52	14.2	Industrial Occupations
366	100.0	TOTAL
		Type of Class
199	54.4	Cooperative
135	36.9	Senior level, not cooperative
32	8.7	Junior/Senior related
366	100.0	TOTAL
		1. What is your sex?
81	22.1	1. Male
285	77.9	2. Female
366	100.0	TOTAL
		2. What is your age?
3	0.8	1. 15
11	3.0	2. 16
204	55.7	3. 17
135	36.9	4. 18
12	3.3	5. 19
1	0.3	6. 20
366	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		3. In what grade are you now?
0	0.0	1. 10th grade
36	9.8	2. 11th grade
330	90.2	3. 12th grade
366	100.0	TOTAL
		4. Is your father or stepfather living with you?
301	83.4	1. Yes
60	16.6	2. No (if no, skip to Ques. 7)
361	100.0	TOTAL
		5. Is your father or stepfather now working?
283	90.4	1. Yes
30	9.6	2. No
313	100.0	TOTAL
		6. What kind of work does your father or stepfather do? (Responses coded by the Roe scheme)
30	10.1	Group 1 - Service
12	4.1	Group 2 - Business Contact
60	20.3	Group 3 - Organization
181	61.1	Group 4 - Technology
1	0.3	Group 5 - Outdoor
2	0.7	Group 6 - Science
9	3.1	Group 7 - General Cultural
1	0.3	Group 8 - Arts and Entertainment
296	100.0	TOTAL BY GROUP
1	0.3	Level 6 - Professional/Managerial 1
24	8.1	Level 5 - Professional/Managerial 2
85	28.7	Level 4 - Semiprofessional/Small Business
102	34.5	Level 3 - Skilled
78	26.4	Level 2 - Semiskilled
6	2.0	Level 1 - Unskilled
296	100.0	TOTAL BY LEVEL
		7. Is your mother or stepmother living with you?
334	92.8	1. Yes
26	7.2	2. No (if no, skip to Ques. 10)
360	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		8. Is your mother or stepmother now working either part-time or full-time outside your home?
174	51.0	1. Yes
167	49.0	2. No (if no, skip to Ques. 10)
341	100.0	TOTAL
		9. What kind of work does your mother or stepmother do? (Responses coded by the Roe scheme)
38	21.6	Group 1 - Service
3	1.7	Group 2 - Business Contact
85	48.3	Group 3 - Organization
28	15.8	Group 4 - Technology
-	--	Group 5 - Outdoor
14	8.0	Group 6 - Science
7	4.0	Group 7 - General Cultural
1	0.6	Group 8 - Arts and Entertainment
176	100.0	TOTAL BY GROUP
-	--	Level 6 - Professional/Managerial 1
15	8.5	Level 5 - Professional/Managerial 2
36	20.5	Level 4 - Semiprofessional/Small Business
52	29.5	Level 3 - Skilled
57	32.4	Level 2 - Semiskilled
16	9.1	Level 1 - Unskilled
176	100.0	TOTAL BY LEVEL
		10. What would you estimate your parents' combined income to be?
10	2.9	1. under $4,000 per year
60	17.2	2. between $4,100 and $8,000 per year
97	28.0	3. between $8,100 and $12,000 per year
37	10.6	4. between $12,100 and $16,000 per year
29	8.3	5. $16,100 or over
115	33.0	6. don't know
348	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		11. How much schooling does your father or stepfather have?
5	1.4	1. 1st, 2nd, or 3rd grade
14	3.9	2. 4th, 5th, or 6th grade
58	16.0	3. 7th, 8th, or 9th grade
60	16.6	4. some high school but did not graduate
100	27.6	5. graduated from high school
39	10.8	6. some college but did not graduate
47	13.0	7. graduated from college
24	6.6	8. don't know
15	4.1	9. father deceased
362	100.0	TOTAL
		12. How much schooling does your mother or stepmother have?
4	1.1	1. 1st, 2nd, or 3rd grade
14	3.9	2. 4th, 5th, or 6th grade
39	10.8	3. 7th, 8th, or 9th grade
57	15.7	4. some high school but did not graduate
157	43.4	5. graduated from high school
43	11.8	6. some college but did not graduate
25	6.9	7. graduated from college
18	5.0	8. don't know
5	1.4	9. mother deceased
362	100.0	TOTAL
		13. How many times during your life have you moved into a different city or town?
182	50.1	1. never, have always lived here
66	18.2	2. 1 time
38	10.5	3. 2 times
23	6.3	4. 3 times
10	2.8	5. 4 times
44	12.1	6. 5 or more times
363	100.0	TOTAL
		14. The word that most often describes your overall opinion of school is:
19	5.2	1. exciting
175	48.1	2. interesting
139	38.2	3. tiresome
31	8.5	4. maddening
364	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		15. On the average, what grades do you make?
110	30.0	1. mostly A's and B's
181	49.5	2. mostly B's and C's
72	19.7	3. mostly C's and D's
3	0.8	4. mostly D's and F's
366	100.0	TOTAL
		16. Do you plan to go to school after high school?
167	45.7	1. Yes
85	23.3	2. No
113	31.0	3. Not sure
365	100.0	TOTAL
		17. If you answered "Yes" or "Not sure" to Question 16 above, what type of school do you think you will or might attend?
30	10.5	1. public junior college
68	23.9	2. public area vocational-technical school or a technical institute
38	13.3	3. non-public business or technical college
149	52.3	4. 4-year college or university
285	100.0	TOTAL
		18. What is the single most important thing you think a job should offer you? Mark only <u>one</u> item.
27	7.8	1. money
117	34.0	2. being happy in your job
31	9.0	3. job security, not afraid of losing your job
19	5.5	4. pleasant working conditions
73	21.3	5. job that is interesting and exciting
19	5.5	6. having responsibility
15	4.4	7. having nice people to work with
10	2.9	8. using what you have learned
33	9.6	9. chance to learn more
-	--	10. other (if the items above do not include the answer you want to make, write your answer in the blank space on the answer sheet)
344	100.0	TOTAL
		19. Which would you rather do?
84	23.2	1. direct the work of other employees
170	46.8	2. work independently, work by yourself
109	30.0	3. work under the direction of someone
363	100.0	TOTAL

Question Content with Options

20. You probably have given some thought to the kind of work you want to do when you begin full-time work. Which three (3) kinds of work have you given most serious thought to entering?

Write your answers on the three lines for this question on the answer sheet. (Responses coded by the Roe scheme)

Responses N	Responses %	
First-listed considered occupation:		
69	19.8	Group 1 - Service
4	1.1	Group 2 - Business Contact
170	48.9	Group 3 - Organization
53	15.2	Group 4 - Technology
3	0.9	Group 5 - Outdoor
15	4.3	Group 6 - Science
17	4.9	Group 7 - General Cultural
17	4.9	Group 8 - Arts and Entertainment
348	100.0	TOTAL BY GROUP
16	4.6	Level 6 - Professional/Managerial 1
47	13.5	Level 5 - Professional/Managerial 2
138	39.7	Level 4 - Semiprofessional/Small Business
84	24.1	Level 3 - Skilled
61	17.5	Level 2 - Semiskilled
2	0.6	Level 1 - Unskilled
348	100.0	TOTAL BY LEVEL
Second-listed considered occupation:		
61	19.1	Group 1 - Service
4	1.3	Group 2 - Business Contact
134	42.0	Group 3 - Organization
36	11.3	Group 4 - Technology
5	1.6	Group 5 - Outdoor
30	9.4	Group 6 - Science
25	7.8	Group 7 - General Cultural
24	7.5	Group 8 - Arts and Entertainment
319	100.0	TOTAL BY GROUP
12	3.8	Level 6 - Professional/Managerial 1
58	18.2	Level 5 - Professional/Managerial 2
98	30.6	Level 4 - Semiprofessional/Small Business
94	29.5	Level 3 - Skilled
56	17.6	Level 2 - Semiskilled
1	0.3	Level 1 - Unskilled
319	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		Third-Listed Considered Occupation:
58	22.6	Group 1 - Service
1	0.4	Group 2 - Business Contact
83	32.3	Group 3 - Organization
33	12.8	Group 4 - Technology
6	2.3	Group 5 - Outdoor
22	8.6	Group 6 - Science
31	12.1	Group 7 - General Cultural
23	8.9	Group 8 - Arts and Entertainment
257	100.0	TOTAL BY GROUP
14	5.4	Level 6 - Professional/Managerial 1
57	22.2	Level 5 - Professional/Managerial 2
63	24.5	Level 4 - Semiprofessional/Small Business
63	24.5	Level 3 - Skilled
57	22.2	Level 2 - Semiskilled
3	1.2	Level 1 - Unskilled
257	100.0	TOTAL BY LEVEL
		21. Have you decided yet on entering one kind of work?
205	56.0	1. Yes
161	44.0	2. No (if no, skip to Ques. 38)
366	100.0	TOTAL
		22. What kind of work have you decided to enter when you begin full-time work? Write your answer on the blank line for this question on the answer sheet. (Responses coded by the Roe scheme.)
43	19.9	Group 1 - Service
2	0.9	Group 2 - Business Contact
105	48.6	Group 3 - Organization
33	15.3	Group 4 - Technology
1	0.5	Group 5 - Outdoor
12	5.6	Group 6 - Science
10	4.6	Group 7 - General Cultural
10	4.6	Group 8 - Arts and Entertainment
216	100.0	TOTAL BY GROUP
5	2.3	Level 6 - Professional/Managerial 1
35	16.2	Level 5 - Professional/Managerial 2
86	39.8	Level 4 - Semiprofessional/Small Business
59	27.3	Level 3 - Skilled
31	14.4	Level 2 - Semiskilled
-	--	Level 1 - Unskilled
216	100.0	TOTAL BY LEVEL

Responses N	Responses %	Question Content with Options
		23. How long ago did you make your choice of work you would enter when you begin full-time work?
110	48.9	1. within the last year
64	28.4	2. more than a year ago but less than two years ago
33	14.7	3. was made a long time ago
18	8.0	4. has always been your choice of work
225	100.0	TOTAL
		24. How much training/education is needed for your choice of work?
12	5.2	1. less than high school education
74	32.4	2. high school education
36	15.7	3. high school education plus apprenticeship
53	23.1	4. one or two years training beyond high school
40	17.5	5. 4-year college education
14	6.1	6. more than 4 years of college
229	100.0	TOTAL
		25. Do you feel that what you are studying in school now will be helpful to you in your job when you begin full-time work?
154	67.2	1. of great help
59	25.8	2. of a little help
16	7.0	3. of no help at all
229	100.0	TOTAL
		26. Rank the items below in how helpful they were to you in giving you information about your choice of work. Directions: Instead of marking "X" in the ( ),: mark "1" for the one which was most helpful mark "2" for the one which was second most helpful mark "3" for the one which was third most helpful mark "X" for the one which was least helpful You will, therefore, have marked four (4) parentheses for this question.

responses on next page

Total N	1 Most %	2 Second %	3 Third %	Least %		Source of Occupational Information
98	21.4	40.8	22.4	15.4	1.	father
126	43.7	25.4	20.6	10.3	2.	mother
60	5.0	30.0	30.0	35.0	3.	other relative
88	14.8	20.5	31.7	33.0	4.	friend
107	46.7	21.5	21.5	10.3	5.	teacher
68	8.8	16.2	23.5	51.5	6.	school counselor
98	41.8	23.5	26.5	8.2	7.	people you know in that kind of work
57	3.5	17.5	10.5	68.5	8.	television and radio programs and documentaries
56	19.6	26.9	32.1	21.4	9.	reading books and magazines with articles about that kind of work
53	20.8	22.6	30.2	26.4	10.	pamphlets describing that career

27. Rank the items below in how important they are to you in the work you have chosen.
Mark "1" for the most important to you
Mark "2" for the second most important to you
Mark "3" for the third most important to you.

Total N	Most %	Second %	Third %		Job Attributes
160	26.9	37.5	35.6	1.	salary
135	28.9	39.3	31.8	2.	working conditions
129	51.9	21.7	26.4	3.	challenge and excitement
88	26.2	35.2	38.6	4.	job security
23	8.7	30.4	60.9	5.	status in society
69	43.5	31.9	24.6	6.	type of activity you like to do best
3	100.0	--	--	7.	other(s "to help others"

28. When you were making your choice of the kind of work you want to do, how much were you influenced by how your <u>father</u> or <u>stepfather</u> felt about that kind of work?

46	20.4	1. greatly influenced
89	39.6	2. somewhat influenced
65	28.9	3. not influenced at all
25	11.1	4. father or stepfather is not living in the home (skip to Ques. 30)
225	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		29. Does your father or stepfather approve of your choice of work:
177	84.3	1. Yes
4	1.9	2. No
29	13.8	3. Don't know
210	100.0	TOTAL
		30. When you were making your choice of the kind of work you want to do, how much were you influenced by how your mother or stepmother felt about that kind of work?
74	32.6	1. greatly influenced
89	39.2	2. somewhat influenced
55	24.2	3. not influenced at all
9	4.0	4. mother or stepmother is not living in the home (skip to Ques. 32)
227	100.0	TOTAL
		31. Does your mother or stepmother approve of your choice of work?
204	90.6	1. Yes
8	3.6	2. No
13	5.8	3. Don't know
225	100.0	TOTAL
		32. When you were making your choice of the kind of work you wanted to do, how much were you influenced by how your closest friends felt about that kind of work?
50	22.0	1. greatly influenced
91	40.1	2. somewhat influenced
86	37.9	3. not influenced at all
227	100.0	TOTAL
		33. Do your closest friends think you have made a good choice of work?
164	71.6	1. Yes
10	4.4	2. No
55	24.0	3. Don't know
229	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		34. When you were making your choice of the kind of work you want to do, how much were you influenced by how your <u>teachers</u> felt about that kind of work?
76	33.4	1. greatly influenced
78	34.4	2. somewhat influenced
73	32.2	3. not influenced at all
227	100.0	TOTAL
		35. Do your teachers think you have made a good choice of work?
136	59.9	1. Yes
7	3.1	2. No
84	37.0	3. Don't know
227	100.0	TOTAL
		36. When you were making your choice of the kind of work you want to do, how much were you influenced by how your <u>school counselor</u> felt about that kind of work?
35	15.6	1. greatly influenced
55	24.6	2. somewhat influenced
129	57.6	3. not influenced at all
5	2.2	4. don't have a school counselor
224	100.0	TOTAL
		37. Does your school counselor think you have made a good choice of work?
71	32.4	1. Yes
5	2.3	2. No
143	65.3	3. Don't know
219	100.0	TOTAL
		38. How much pressure did you feel from your <u>parents</u> to make some choice of work?
46	12.7	1. great pressure
147	40.7	2. some pressure
168	46.6	3. no pressure at all
361	100.0	TOTAL
		39. How much pressure did you feel from your <u>teachers</u> to make some choice of work?
47	13.0	1. great pressure
114	31.6	2. some pressure
200	55.4	3. no pressure at all
361	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		40. How much pressure did you feel from your school counselor to make some choice of work?
16	4.5	1. great pressure
53	14.7	2. some pressure
277	77.2	3. no pressure at all
13	3.6	4. don't have a school counselor
359	100.0	TOTAL
		41. If it were possible for you to enter any kind of work you wanted to enter and you were sure you would be able to do that work well, what would you select as your "dream job"?
64	20.8	Group 1 - Service
3	1.0	Group 2 - Business Contact
105	34.2	Group 3 - Organization
26	8.5	Group 4 - Technology
13	4.2	Group 5 - Outdoor
31	10.1	Group 6 - Science
22	7.2	Group 7 - General Cultural
43	14.0	Group 8 - Arts and Entertainment
307	100.0	TOTAL BY GROUP
42	13.7	Level 6 - Professional/Managerial 1
58	18.9	Level 5 - Professional/Managerial 2
112	36.5	Level 4 - Semiprofessional/Small Business
67	21.8	Level 3 - Skilled
28	9.1	Level 2 - Semiskilled
-	--	Level 1 - Unskilled
307	100.0	TOTAL BY LEVEL

Several kinds of work are listed below. Please indicate how you feel about about each of them by putting an "X" in one of the five ( ) on the answer sheet which follow each number matching the kind of work listed.

Mark 1 ( ) if you feel this is highly respected, attractive work
Mark 2 ( ) if you feel this is important work
Mark 3 ( ) if you feel this is useful work
Mark 4 ( ) if you feel this is unattractive work
Mark 5 ( ) if you feel this is very unattractive work

Total N	Relative Attractiveness 1 %	2 %	3 %	4 %	5 %		Occupation
357	51.3	37.8	6.7	1.1	3.1	42.	physician/surgeon/doctor
354	26.0	29.4	35.6	4.5	4.5	43.	secretary
353	18.4	31.2	23.2	13.3	13.9	44.	career military service (Army, Navy, etc.)
352	9.1	25.8	42.6	11.4	11.1	45.	building construction worker
351	29.1	37.0	24.2	5.7	4.0	46.	architect
352	8.8	28.1	40.6	13.1	9.4	47.	mechanic
355	5.4	5.0	30.7	34.4	24.5	48	waitress
350	20.9	44.2	17.4	8.6	8.9	49.	teacher
352	36.1	30.4	12.2	8.8	12.5	50.	senator/representative (elected official)
349	21.2	35.2	34.1	4.9	4.6	51.	computer programmer
354	32.0	46.0	13.6	2.8	5.6	52.	nurse
350	47.8	35.4	9.1	4.0	3.7	53.	attorney-at-law
351	6.8	15.7	53.5	17.4	6.6	54.	store sales person
350	13.7	31.1	33.2	12.9	9.1	55.	farmer
350	16.9	39.4	30.3	8.3	5.1	56.	accountant
351	29.3	44.2	14.2	4.6	7.7	57.	detective/policeman
351	12.0	32.7	32.5	12.3	10.5	58.	governmental management (not elected; such as a city manager working under contract to the city)
350	9.4	17.1	45.7	16.9	10.9	59.	dressmaker
350	18.6	24.0	41.4	10.0	6.0	60.	radio/television announcer

Responses N	Responses %	Question Content with Options

PARNES' OCCUPATIONAL INFORMATION TEST

Directions: I would like your opinion about the kind of work that men in certain jobs usually do. For each occupation listed there are three descriptions of job duties. Please mark your answers on the answer sheet. Put an "X" in the parentheses ( ) with the number matching that of the answer you choose. Be sure to read all of the possible answers before you decide.

		A-1. HOSPITAL ORDERLY
237	67.9	*C1. Helps to take care of hospital patients
16	4.6	2. Orders food and other supplies for hospital kitchens
24	6.9	3. Works at hospital desk where patients check in
72	20.6	4. Don't know - skip to B-1.
349	100.0	TOTAL
		A-2. How much regular schooling do you think hospital orderlies usually have?
7	2.4	P1. less than a high school diploma
95	32.9	A2. a high school diploma
99	34.3	3. some college
44	15.2	4. college degree
44	15.2	5. don't know
289	100.0	TOTAL
		B-1. MACHINIST
82	23.5	1. Makes adjustments on automobile, airplane, and tractor engines
36	10.3	2. Repairs electrical equipment
173	49.6	C3. Sets up and operates metal lathes, shapers, and grinders, buffers, etc.
58	16.6	4. Don't know - skip to C-1.
349	100.0	TOTAL
		B-2. How much regular schooling do you think machinists usually have?
22	7.3	P1. less than a high school diploma
142	47.3	A2. a high school diploma
83	27.7	3. some college
21	7.0	4. college degree
32	10.7	5. don't know
300	100.0	TOTAL

*NOTE: C, correct response; P, preferred response; A, alternate response.

Responses N	Responses %	Question Content with Options
		C-1. ACETYLENE WELDER
11	3.2	1. Builds wooden crates to hold tanks of acetylene gas
172	49.3	C2. Uses a gas torch to cut metal or join pieces of metal together
11	3.2	3. Operates a machine that stitches the soles to the upper parts of shoes
154	44.3	4. Don't know - skip to D-1.
348	100.0	TOTAL
		C-2. How much regular schooling do you think acetylene welders usually have?
30	13.5	P1. Less than a high school diploma
96	43.2	A2. a high school diploma
41	18.5	3. some college
16	7.2	4. college degree
39	17.6	5. don't know
222	100.0	TOTAL
		D-1. STATIONARY ENGINEER
136	39.5	1. Works at a desk, making drawings and solving engineering problems
14	4.1	2. Drives a locomotive that moves cars around in a freight yard.
32	9.3	C3. Operates and maintains such equipment as steam boilers and generators
162	47.1	4. Don't know - skip to E-1.
344	100.0	TOTAL
		D-2. How much regular schooling do you think stationary engineers usually have?
10	4.9	P1. less than a high school diploma
31	15.3	A2. a high school diploma
55	27.1	3. some college
83	40.9	4. college degree
24	11.8	5. don't know
203	100.0	TOTAL
		E-1. STATISTICAL CLERK
222	64.2	C1. Makes calculations with an adding machine or a calculator
20	5.7	2. Sells various kinds of office machines and supplies
9	2.6	3. Collects tickets at sports events and other types of entertainment
95	27.5	4. Don't know - skip to F-1.
346	100.0	TOTAL

Responses N	Responses %	Question Content with Options
		E-2. How much regular schooling do you think statistical clerks usually have?
9	3.4	1. less than a high school diploma
73	27.4	C2. a high school diploma
117	44.0	3. some college
45	16.9	4. college degree
22	8.3	5. don't know
266	100.0	TOTAL
		F-1. FORK LIFT OPERATOR
19	5.5	1. Operates a machine that makes a certain kind of agricultural tool
37	10.8	2. Operates a freight elevator in a warehouse or factory
171	49.7	C3. Drives an electrical or gas powered machine to move material in a warehouse or factory
117	34.0	4. Don't know - skip to G-1.
344	100.0	TOTAL
		F-2. How much regular schooling do you think fork lift operators usually have?
80	32.3	C1. less than a high school diploma
132	53.2	2. a high school diploma
10	4.0	3. some college
8	3.2	4. college degree
18	7.3	5. don't know
248	100.0	TOTAL
		G-1. ECONOMIST
43	12.5	1. Prepares menus in a hospital, hotel, or other such establishment
209	60.6	C2. Does research on such matters as general business conditions, unemployment, etc.
21	6.1	3. Assists a chemist in developing chemical formulas
72	20.8	4. Don't know
345	100.0	TOTAL
		G-2. How much regular schooling do you think economists usually have?
6	2.0	1. less than a high school diploma
16	5.5	2. a high school diploma
50	17.1	3. some college
195	66.6	C4. college degree
26	8.8	5. don't know
293	100.0	TOTAL

OCCUP. LEVEL	OCCUPATIONAL GROUP 1 Service	2 Business Contact	3 Organi-zation
Prof./ Mgr. 1	Psychologist (2)*		
Prof./ Mgr. 2	Home Economist (2) Logopedics Missionary (2) Music Therapist (2) Occupational Therapist Physical Therapist (2) Social Worker (2)	Public Relations	Systems Analyst
Semi-Prof./ Sm. Bus.	Career Military (3)	Insurance Sales	Accountant Buyer Computer Programmer (2) Legal Secretary (5) Medical Secretary Office Manager Own own Business Secretary (55) Specialty Sales (2) Store Manager (2)
Skilled	Hairdresser (5) Policeman Stewardess (4)		Bookkeeper (4) Computer Operator (4) Retail Sales (9) Stenographer (2) Ticket Agent
Semi-skilled	Child Care (6) Cook Hospital Orderly Nurse Aide (2) Nursing Home Aide (2) Seamstress Waitress (3)		General Clerical (7) Key Punch Operator Receptionist (2) Telephone Operator Typist (2)
Un-skilled			
TOTAL	43 19.9%	2 0.9%	105 48.6%

* Denotes N if more than 1.

OCCUP. LEVEL	OCCUPATIONAL GROUP 4 Technology	5 Outdoor	6 Science
Prof./ Mgr. 1			
Prof./ Mgr. 2	Electrical Engineer Electronic Designer Engineer Mechanical Engineer		Nurse (7)
Semi-Prof./ Sm. Bus.	Air Traffic Controller Draftsman Electronics Geologist Apprentice		X-Ray Technician (3)
Skilled	Air Conditioning Service (2) Auto Mechanic (5) Cabinet Maker (2) Carpenter (2) Compositor Electrician Machinist Plastics Worker (3) Printer (3) Repairman Steel Construction Tool and Die	Gardner	Dental Assistant Mortician Assistant
Semi-skilled	Auto Body (2)		
Un-skilled			
TOTAL	33 15.3%	1 0.5%	12 5.6%

OCCUP. LEVEL	OCCUPATIONAL GROUP 7 General Cultural	OCCUPATIONAL GROUP 8 Arts/Entertainment	TOTAL N %
Prof./ Mgr. 1	Lawyer (2)	Singer	5 2.3%
Prof./ Mgr. 2	Counselor Elementary Teacher (2) Minister (2) Teacher	Architect (3) Dance Teacher	35 16.2%
Semi-Prof./ Sm. Bus.	Radio Announcer Reporter	Architectural Engineer Commercial Artist	86 39.8%
Skilled		Model (2) Race Driver	59 27.3%
Semi-skilled			31 14.4%
Un-skilled			--
TOTAL	10 4.6%	10 4.6%	216 100%